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TRANSACTIONS

OF THE

OHIO STATE MEDICAL SOCIETY.

Columbus, 1859.

No. _____

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September, 1897

TRANSACTIONS

OF THE

123

FOURTEENTH ANNUAL MEETING

OF THE

OHIO STATE MEDICAL SOCIETY,

HELD IN THE

CITY OF COLUMBUS, JUNE, 1859.

Dr. [illegible] S. Hedges,

COLUMBUS:
PRINTED BY FOLLETT, FOSTER & CO.
1859.

TRANSACTIONS

OF THE

OHIO STATE MEDICAL SOCIETY,

HELD IN THE

CITY OF COLUMBUS, JUNE, 1859.

COLUMBUS, TUESDAY, JUNE 7, 1859.
10½ o'clock A. M.

THE Ohio State Medical Society convened to-day at 10½ o'clock A. M., in the Supreme Court Room.

The President being absent, Dr. L. Firestone, Vice President, called the Society to order, and, by request, Rev. Mr. Morris engaged in prayer.

Dr. J. B. Thompson, on behalf of the Executive Committee, presented the following report, which was, on motion, adopted:

The Executive Committee beg leave to report:

That in compliance with the duty imposed on them by the By-Laws, they have secured, for the use of the Society, the Supreme Court Room, in which we are now assembled, free of charge, except for the services of janitor.

They have also furnished the necessary stationery for the use of the Society, and given due notice of the time and place of meeting.

To facilitate the transaction of business, they recommend the adoption of the following order:

The Society shall hereafter meet at 9 o'clock A. M.; and, at the close of the morning session, take a recess until 2 o'clock P. M., and adjourn at such time as may suit its own convenience.

For the first session, the following order is recommended:

1st. Report from committee on Admissions.

2d. Election of new members.

3d. Election of officers for the ensuing year.

As a means of securing a free and unbiased expression of the wishes of the members in the selection of officers, the following plan is recommended, viz:

Candidates for the several offices shall (without the intervention of a committee) be nominated in open Society, and balloted for; and should no one, on the first ballot, receive the constitutional majority, (when there are three or more candidates), the one who has received the smallest number of votes shall be dropped on each succeeding ballot until a choice is made.

4th. Valedictory of President.

5th. Reports of officers.

At all subsequent sessions, the following order shall be observed after the Society is called to order:

1st. Reading the minutes of the preceding session.

2d. Report of committee on Admissions and election of new members.

3d. Reports from other standing committees.

4th. Reports from special committees.

5th. Unfinished business.

6th. New business and volunteer papers.

It is expected that popular addresses will be delivered on the evenings of Tuesday and Wednesday.

All of which is respectfully submitted,

J. B. THOMPSON,
Ch'n of Ex. Com.

There being two members of the committee on Admissions absent, the President appointed Drs. Pomerene and Gundry to fill the vacancy.

On motion of Dr. Slusser, reporters of the city papers were invited to a seat within the bar of the house.

The committee on Admissions recommended the following gentlemen for membership, all of whom were elected:

Dr.	F. C. Applegate, - - - - -	Windham.
"	R. L. Sweney, - - - - -	Marion.
"	L. C. Fouts, - - - - - -	Eaton.
"	T. M. Cook, - - - - -	———

Dr.	C. H. W. Mahlman,	Columbus.
"	J. W. Wilson,	Fremont.
"	I. L. Drake,	Lebanon.
"	A. Robb,	Dodsonville.
"	M. Dawson,	Carrollton.
"	H. W. Darwin,	Gettysburg.
"	G. M. Beach,	W. Jefferson.
"	— Drury,	Columbus.
"	E. Pearce,	———
"	W. W. Bridge,	———
"	B. F. Welsh,	California.
"	W. A. Johnson,	———
"	S. S. Scoville,	———

The Treasurer being absent, Dr. J. B. Thompson was appointed Treasurer pro tem.

The following officers were elected by ballot:

President—Dr. L. Firestone.

Vice Presidents—Drs. Jas. Bronson, John Davis, B. S. Brown, Charles Robertson.

Secretaries—Drs. W. W. Dawson, A. Metz.

Treasurer—Dr. J. B. Thompson.

Librarian—Dr. R. Thompson.

Committee on Admissions—Drs. J. Pomerene, G. F. Mitchell, G. E. Eels, L. Slusser, R. L. Sweney.

The President elect, Dr. Firestone, on accepting the office tendered him, thanked the Society in a brief but manly speech, and urged the members to consider carefully and earnestly the importance of the work before them.

Society adjourned until 2½ o'clock P. M.

2½ o'clock P. M.

The President called the Society to order, and appointed the standing committees.

For list of committees, see page 19.

Dr. R. Thompson gave notice that he would read the following papers: On "Cataract;" on "Permanent cure of Inguinal Hernia;" on "Forming Artificial Cataract in the eyes of dead animals;" on "Something about Eyes."

The former Treasurer, Dr. T. J. Mullen, made his annual report, which was, on motion, referred to the committee on Finance.

The Secretary read the following communication from the Toledo Medical Association:

TOLEDO, O., June 3d, 1859.

At a meeting of the Toledo Medical Association, held June 2d, 1859, the following preamble and resolutions were unanimously adopted:

WHEREAS, The State Medical Society of Ohio has, on various occasions, taken initiative measures towards procuring legal protection to the medical profession of this State, and have not prosecuted the matter to a final action; therefore, be it

Resolved, That this Association do memorialize the State Society on this subject, and request them to appoint a committee to draft a law similar to that passed by the Legislature of New Jersey. (Statutes of N. J., A. D. 1830, and subsequent amendments.)

Resolved, That the State Society be requested to urge upon its individual members the importance and necessity of personal interviews with the senators and representatives of their particular districts on this subject.

Resolved, That the State Society be requested to have the law which is drafted printed, with a petition to the Legislature attached, and to send the same into every senatorial and representative district in the State of Ohio, for the signatures of all regular practitioners of medicine in the State; the petition, after it has been thus signed, to be returned to the chairman of the committee for presentation to the Legislature of Ohio at its ensuing session.

Resolved, That a copy of these resolutions, signed by our President and Secretary, be sent to the State Medical Society at its next meeting at Columbus.

W. W. JONES, *President.*

CHARLES H. SWAIN, *Secretary.*

Dr. Landon moved to refer this communication to a special committee.

Dr. Eels moved to amend Dr. Landon's motion by naming the committee on Medical Societies.

Dr. Bronson gave notice that he would read the following papers, viz: "Empyema following Scarlatina, with an operation;" "The Management of a case where the funis presented."

Dr. J. G. Kyle gave notice that he would read a paper on *Epilepsy.*

In response to an invitation from the Executive committee, a communication was received from Dr. M. B. Wright of Cincinnati, announcing that he would deliver an address before the Society and citizens of Columbus, on Wednesday evening, on the subject of "Drunkenness, its Nature and Cure; or, The Establishment of Asylums for Inebriates."

Dr. J. P. Kirtland sent to the Society for consideration two papers, designated as follows: "An essay on Detecting and Diagnosing the simpler forms of Valvular Diseases of the Heart;" an essay on the use of "Podophyllin and Leptandrin as substitutes for Mercurials in diseases of the digestive organs.

Reports from committees being called for by the President,

Dr. John Dawson, chairman of the committee on Publication, made a verbal report in reference to the publication of the transactions for last year.

The report of the committee on Insanity, Dr. R. Gundry, Chairman, was made the order of the day for to-morrow at 9 A. M.

Committee on New Remedies—Dr. John A. Murphy, Chairman. No report.

Committee on Ethics—Dr. J. Harman, Chairman. No report.

Committee on Asylums for Inebriates, through Dr. Lewis Slusser, Chairman, stated that, as Dr. M. B. Wright would deliver a lecture upon the subject, during the session of the Society, that the report would be deferred until after the delivery of Dr. Wright's lecture.

Committee on Diseases of the Eye—Dr. G. E. C. Weber, Chairman. No report.

Committee on Cannabis Indica—Dr. W. P. Kincaid, Chairman. No report.

Committee on Ovarian Diseases—Dr. John Delamater, Chairman—being called, Dr. J. H. Hamilton stated that he had received a paper from Dr. Delamater on the subject, and by request of Dr. D., he would include it in his report, as Chairman of the committee on Surgery.

Committee on Medical Surgery—Dr. W. H. Mussey, Chairman. No report.

Committee on Uterine Diseases—Dr. S. M. Smith, Chairman, reported progress and asked to be continued.

On motion of Dr. Landon, the request of Dr. Smith was granted.

Committee on Obstetrics—Dr. A. Metz, Chairman of this committee, presented an exceedingly interesting report; which was, on motion of Dr. Bronson, referred to the Publication Committee. (See Appendix A.)

Dr. R. N. Barr, Chairman of the committee on Finance, made the following report, which was, on motion of Dr. Eels, adopted:

The Finance Committee report, that they have examined the report and vouchers of the Treasurer, Dr. Mullen, referred to them, and find the same correct. A synopsis of the report is briefly as follows:

Receipts in full	$230 50
Expenditures	20 48
Balance on hand	$210 02
Amount in the hands of a former Treasurer—Dr. Crume	12 81

The committee report, that the bill for publishing the transactions for the year 1858 (amounting to 75 dollars), is unpaid, and finding the same correct, have audited the bill and ordered it to be paid.

The committee also recommend an assessment of one dollar to each member of the Society, to meet accruing expenses for the coming year, and for such other purposes as the Society may direct; and

that a copy of the transactions be furnished only to such as have paid their annual assessments.

R. N. Barr,
T. M. Cook,
E. B. Stevens,
E. F. Applegate,
A. Metz,
Committee.

Dr. J. W. Hamilton moved that the order of business be suspended, and Dr. Kyle requested to read his paper on Epilepsy.

After giving a synopsis of the paper, Dr. Kyle was excused from reading it entire, and, on motion of Dr. R. Thompson, it was referred to the committee on Publication. (See Appendix B.)

Dr. G. E. Eels, in behalf of the profession of Columbus, invited the Society to a banquet at the Neil House on Wednesday evening; and also, in behalf of A. Wilson, Esq., proprietor of the Ohio White Sulphur Springs, to visit those Springs on Thursday, the 9th inst. Dr. Eels also stated, that Mr. Wilson would have prepared for the Society a lunch at the Neil House at 12 o'clock, previous to starting.

The committee on Admissions reported the following gentlemen for membership, all of whom were elected:

Dr. John McCullough, - - - -	West Jefferson.
" Milton W. Junkins, - - -	Bellaire.
" J. H. Rogers, - - - - -	Springfield.
" S. B. Crew, - - - - -	Batavia.

A communication was received from Dr. R. Hills, Superintendent of the Central Lunatic Asylum of Ohio, inviting the Society to visit that institution during the present session.

The Society was also invited to visit the Penitentiary, by the Warden, Mr. Van Slyke.

Dr. Bronson, in consideration of the amount of business,

moved that the Society have a session this evening at 8 o'clock.

On motion, the following resolution was adopted:

Resolved, That the invitation of A. Wilson, Esq., be accepted, and that the Society adjourn at noon, Thursday, so as to give the members time to visit the Ohio White Sulphur Springs during the afternoon.

Dr. G. W. Maris preferred charges against Dr. J. W. Hamilton, which was, on motion, referred to the committee on Ethics, and the committee requested to report at its earliest convenience.

On motion, the Society adjourned.

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8 O'CLOCK P. M.

President called the Society to order.

Dr. Landon, who had been appointed Chairman of the committee on Ethics, resigned, and Dr. R. R. McMeans appointed in his place.

Reports of committees being the order of business,

Dr. J. W. Hamilton, Chairman of the committee on Surgery, stated that he would present his report on tomorrow; subject, Ovarian diseases, and the operations for their relief.

The committee appointed to confer with the Legislature on the subject of Amendments to the Registration Law—Dr. John Dawson, Chairman—being called, made a verbal report, and urged the profession to husband the laws already upon the subject; that the present enactment would be efficient were its requirements heeded by the profession.

Dr. J. B. Thompson contended, that the fault was in the authorities—no blanks having ever been furnished to physicians.

Dr. Hills agreed with Dr. Dawson—the profession itself was at fault, and suggested the propriety of instructing

the committee to prepare an address on the importance of vital statistics—of a comprehensive system of registration.

Dr. Hills moved that the committee be so instructed.

Committee on Obituaries—Dr. Landon, Chairman, stated that he would have prepared, before the close of the session, an obituary notice of Dr. H. A. Ackley—the only member having died during the year.

Committee on Typhoid Fever—Dr. J. Pomerene, Chairman. On account of ill health the chairman of this committee had not been able to finish his report, and requested to be continued.

On motion of Dr. Boyd, the request of Dr. Pomerene was granted.

Dr. Bronson read an interesting paper on Empyema, which was, on motion, referred to the committee on Publication. (See Appendix C.)

Dr. Bronson, by request of the Society, gave the history of a remarkable case of gun-shot wound in the chest of a boy. The contents of a heavy charge passed through the lung and lodged somewhere in the back—the patient doing well, with a fair prospect of recovery.

On motion, the Society adjourned.

WEDNESDAY, JUNE 8, 1859.
9 o'clock A. M.

Society called to order by the President.

The committee on Admissions reported the following gentlemen for membership—all were elected:

Dr. H. H. Little, - - - - - - -	Cleveland.
" E. C. Sharp, - - - - - - -	Williamsburg.
" W. C. Hall, - - - - - - -	Fayetteville.
" A. Braden, - - - - - - -	Carey.
" A. Sabine, - - - - - - - -	Columbus.

The report of the committee on Insanity, Dr. R. Gundry, Chairman, was the order of the day for this hour.

After the reading of the report by Dr. G., remarks highly complimentary were made by Drs. Dawson, A. H. Baker, R. Thompson, Eels and Scott; and, on motion of Dr. Baker, it was referred to the Publication Committee, with instructions to print. (See Appendix D.)

Prof. J. F. Sanford, of Keokuk, Iowa, was introduced to the Society by Dr. R. Hills.

On motion of Dr. Hills, Prof. Sanford was invited by the President to participate in the transactions of the Society.

Dr. R. Thompson read his paper on "Cataract." After some remarks by Prof. Sanford, Drs. Johnson and Thompson, on motion of Dr. W. W. Dawson, the paper was referred to the committee on Publication. (See Appendix E.)

A communication was received from Dr. R. J. Patterson, Superintendent of the Ohio State Asylum for Idiots, inviting the Society to visit that institution.

Dr. R. Thompson read the following papers: "Forming artificial Cataract—on the Whitening of the Lense in the Eyes of Dead Animals;" "Something about Eyes;" "The Radical Cure of Inguinal Hernia."

The above papers were, on motion, referred to the Publication Committee. (See Appendix F, G.)

The Society adjourned until 2 o'clock P. M.

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2 O'CLOCK P. M.

President in the chair.

Minutes of preceding session read and approved.

The report of the committee on Surgery, J. W. Hamilton, Chairman, was, on motion, made the order of the day for 3½ o'clock this afternoon.

The following resolution was presented by Dr. McLean:

Resolved, That the committee on Publication have discretionary power with regard to papers referred to it, unless said papers are specially ordered to be printed.

The committee on Medical Societies presented the following resolution:

Resolved, That the Delamater Medical Association of Norwalk and vicinity, and the Jefferson County Medical Society, be recognized as auxiliaries to the Ohio State Medical Society.

The Secretary read the paper of Dr. Jared P. Kirtland, on "The use of Podophyllin and Leptandrin as a substitute for Mercurials in diseases of the digestive organs."

Dr. A. H. Baker moved to refer the above paper to the Publication Committee. After some remarks, by no means approbatory, by Drs. M. B. Wright and A. H. Baker, the motion to refer was lost.

The Secretary was then requested to read the paper of Dr. Kirtland, viz: "On Detecting and Diagnosing the simpler forms of Valvular Diseases of the Heart."

On motion of Dr. W. W. Dawson, this paper was referred to the committee on Publication, with instructions to print. (See Appendix H.)

Dr. Scott moved that a committee of three be appointed to report, at the next annual session, on "Urinary Diseases." (For committee, see page 20.)

Dr. A. H. Baker offered the following resolution, which was adopted:

Resolved, That when this Society adjourn, it do so to meet next year at the OHIO WHITE SULPHUR SPRINGS, on —— Tuesday in June. (See page 21 for day of meeting.)

Three and a-half o'clock having arrived, Dr. J. H. Hamilton presented his report, as committee on Surgery, which was, on motion, referred to the Publication Committee, with instructions to print. (See Appendix I.)

Dr. R. Thompson gave a verbal history of an operation,

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which he performed some years ago, for the relief of an abdominal tumor.

Dr. Baker gave notice that he would offer as an amendment to the Constitution the following, viz:

Any member who shall be absent from the meetings of the Society for three successive years, shall thereby forfeit his membership, unless detained by some unavoidable circumstance or condition of self or family, of which he shall give a written notice.

Dr. Baker offered the following resolution:

Resolved, That when any committee shall have asked further time to report, and fail to do so at the succeeding meeting, said committee shall be discharged from the further consideration of the subject referred, and another one be appointed.

The President announced the special committees.

For list of committees, see pages 19 and 20.

Dr. S. Loving presented the following request, which was, on motion of Dr. W. W. Dawson, granted:

The committee on Anesthetics is not ready to report; the chairman begs the indulgence of the Society, and respectfully asks to be continued.

S. Loving, *Ch'n.*

Dr. R. Thompson presented to the Society the communication which follows, and requested the co-operation of medical gentlemen in this and adjoining States:

Columbus, June 8, 1859.

Gentlemen of the Ohio State Medical Society:

Placed as I have been upon a committee by the American Medical Association, to examine into and report upon that mysterious disease called "Milk-sickness," "Trembles," or "Sick Stomach," I take this occasion to solicit all facts, opinions, theories and practice known to, or entertained by, the profession upon that disease, which, more than any other (the cholera excepted), has occupied the minds of the profession in the various localities in which its strange, if not inscrutable, manifestations have been made from year to year.

Trusting the mode of inquiry to the intelligent judgment of the profession severally, I presume not to direct the order of procedure proper to be pursued, for the reason that, truth being the object of

my official pursuit, it is right that every inquirer should be left free as to his manner of acquiring it.

As the subject is deemed one of great importance, the laborers in this strange field well deserve my sincere thanks for all assistance rendered, while, in justice to themselves as contributors, due acknowledgments by quotation and names, will appear in my report, should I be spared to present it at the next annual meeting of the American Medical Association.

Very respectfully yours,

R. THOMPSON.

NOTE.—As the next meeting of said Society is to be held on the first Tuesday of June, 1860, it will be important that I shall be in possession of the material solicited as early as mid-winter.

The committee on Ethics made the following report, on the difficulties between Drs. J. W. Hamilton and G. W. Maris:

The committee on Ethics, to whom was referred the charges preferred by Dr. G. W. Maris against Prof. J. W. Hamilton, beg leave to report: That after hearing a statement of the difficulty between said gentlemen, that no grounds whatever exist, in their opinion, for any charge or complaint, and that Prof. Hamilton has acted in the matter the part of a high-minded and honorable gentleman. And the committee herewith recommend that the case be dismissed, and that no further action be had thereon.

All of which is respectfully submitted,

JOHN G. KYLE,
R. R. MCMEANS,
B. B. LEONARD.

After remarks by Drs. G. W. Maris, A. H. Bullen, E. B. Stevens, M. B. Wright, R. Thompson, G. W. Scott and J. W. Hamilton, the report was unanimously adopted.

On motion, the Society adjourned to meet at 8½ o'clock, in Armory Hall, to hear the address of Dr. M. B. Wright.

8½ O'CLOCK P. M.

The Society, together with a large number of ladies and gentlemen, assembled in Armory Hall, to hear the address of Prof. M. B. Wright, on the subject of "Drunkenness, its Nature and its Cure; or, The Establishment of Asylums for Inebriates."

After the house had been called to order, the President introduced Prof. Wright, who delivered, in a very handsome manner, his interesting address.

Dr. Charles Robertson moved that the thanks of the Society be tendered to Prof. Wright for his learned address, and that he be requested to furnish a copy to the committee on Publication, that it may be published in the forthcoming volume of Transactions. (See Appendix J.)

THURSDAY, JUNE 9, 1859.
9 o'clock A. M.

President in the chair.

Minutes read and approved.

The committee on Admissions recommended for membership the following gentlemen, both of whom were elected:

Dr. James T. Housten, - - - - - Jamestown.
" John A. Carothers, - - - - - Kilbourn.

Dr. James Bronson read a paper, viz: "The Management of a case where the funis presented."

Dr. McClure moved a reconsideration of the vote on the resolution in reference to the publication of papers. Lost. (See page 13.)

Dr. McAbee moved that the committee on Publication be instructed to publish the paper of Dr. Metz on Obstetrics, and that of Dr. Gundry on Insanity.

Dr. Landon moved to amend the above so as to include all the papers referred to the Publication Committee, without instructions.

Amendment lost—original resolution carried.

The President announced the delegates to the American Medical Association, and also the delegates to the State

Medical Societies of Indiana and Kentucky. (For delegates, see page 20.

On motion of Dr. W. W. Dawson, the Publication Committee was instructed to publish the papers presented durring this session by Dr. R. Thompson.

Dr. B. B. Leonard moved that the papers read at the meeting last year, on Fractures and Hygene, by Dr. R. Thompson, be referred to the Publication Committee, with instructions to print. (See Appendix, K and L.)

Dr. H. L. Donhan presented a certificate as delegate from the Clermont County Medical Association.

Dr. J. W. Hamilton presented the following testimonial of respect for the venerable Prof. R. D. Mussey, which was, on motion, adopted:

Inasmuch as R. D. Mussey, from its origin a member of this Society, is, on account of age and infirmity, now resident in a distant city, and disqualified for active duty in the profession; therefore

Resolved, That in respect to his distinguished character, we request him to allow the Society to abate his assessments and continue his membership; and that the Secretary is hereby instructed to inform Prof. R. of this action.

Dr. Wm. Judkins moved that *three* delegates be appointed from this Society to attend the Pharmaceutical Convention, which is called to meet at Washington City, D. C. (For delegates, see page 20.)

On motion of Dr. E. B. Stevens, it was

Resolved, That the Publication Committee be empowered to draw on the Treasurer for any amount necessary to publish the transactions for this year, with the approval of the chairman of the committee on Finance.

The following resolutions, presented by Dr. J. W. Hamilton, were adopted:

Resolved by the Ohio State Medical Society, That a committee of three be appointed to confer with the commissioners of the State Library, and the appropriate committee of the next Legislature of the State, and use such other means as, in their discretion, may seem

necessary for the purpose af securing a medical department in the State Library.

Resolved, That said committee of this Society, as a nucleus for said department of said State Library, be instructed to endeavor to secure an appropriation, to be placed at the disposal of the State Librarian, sufficient to secure complete sets of all the medical periodicals currently or formerly published west of the Alleghenies; also complete sets of the proceedings of the American Medical Association, the American Journal of the Medical Sciences, the North American Medico-Chirurgical Review, the London Lancet, and London Medico-Chirurgical Review, in the order herein specified.

Resolved, That the librarian of this Society is hereby instructed to procure three full sets of the proceedings of the Ohio State Medical Conventions; also three full sets of the proceedings of this Society; also one full set of the proceedings of the State Medical Society of each State, where the same can be procured by exchange; have the same bound when necessary, and presented, in behalf of this Society, to said medical department of the said State Library. (For committee, see page 19.

Dr. R. Thompson, after the passage of the above resolutions, generously donated a complete set of the *Western Journal of Medicine*, originated and for many years edited and published by Dr. Daniel Drake.

Dr. Landon moved that the address of Dr. M. B. Wright on "Drunkenness, its Nature and its Cure; or, the Establishment of Asylums for Inebriates," be published in the forthcoming volume of the *Transactions*, and that three thousand (3000) copies extra be published in pamphlet form, for distribution among the members of the Society.

On motion of Dr. J. W. Hamilton, the following resolution was adopted:

Resolved, That a committee of three be appointed for the purpose of taking into consideration a plan to be adopted by the Society for the annual and regular distribution of prizes for meritorious essays. (For committee, see page 20.)

Dr. McAbee moved that the Treasurer be directed to credit himself, in his account with the Society, for five dollars ($5) counterfeit money in his hands, and destroy the bill, and credit himself also with the discount on any uncurrent funds which may be in his possession.

On motion of Dr. Thompson, the thanks of the Convention were unanimously tendered to the officers of the Convention for the courteous, able and impartial manner with which they had discharged the duties of their offices.

Dr. Landon moved that the thanks of the Society be tendered to the newspaper reporters and publishers of the city of Columbus, for their liberal and faithful reports of the proceedings during the present session.

The thanks of the Society were, on motion, returned to the medical profession of Columbus, for the handsome entertainment given last night at the Neil House, and for the many courtesies extended to the members during their stay at the Capital City.

The following are the appointments made by the President:

STANDING COMMITTEES.

Executive — G. E. Eels, W. W. Dawson, W. L. McMillen, R. Hills, R. Thompson.

Medical Societies—G. F. Mitchell, William Judkins, T. J. Mullen, Washington Moorehead, D. B. Woods.

Publication — S. Loving, W. W. Dawson, A. Metz, R. Gundry, J. B. Thompson.

Finance — R. N. Barr, T. D. Cook, Fred. C. Applegate, H. M. McAbee, E. B. Stephens.

Ethics — R. R. McMeens, B. B. Leonard, W. M. Prentiss, R. Rodgers, J. G. Kyle.

Admissions — J. Pomerene, G. F. Mitchell, G. E. Eels, Lewis Slusser, R. L. Sweney.

SPECIAL COMMITTEES.

Surgery — A. H. Baker, T. Garlick, A. Carey.

Obstetrics — M. B. Wright, J. H. Rodgers, S. P. Hunt.

Library — J. W. Hamilton, J. Helmick, J. C. Thompson.

Amendments to Registration Law — John Dawson, S. M. Smith, J. L. Vattier.

Anesthetics — S. Loving.

Medical Literature — E. B. Stevens, H. J. Donahoo, J. L. Drake.

Obituaries—C. P. Landon, C. C. Hildreth, J. V. Schertzer.

Cannabis Indica—R. R. McMeens, W. P. Kincaid, C. P. Landon.

Urinary Diseases—W. J. Scott, R. G. McLean, E. Sinnett.

Uterine Diseases—S. M. Smith.

Practice—W. J. Scott, J. B. Potter, M. Thompson.

Prize Essays—S. G. Armor, C. McDermot, W. H. Lamme.

Ovarian Disease—J. W. Hamilton, W. H. Mussey, G. V. Dorsey.

Diseases of the Eye—A. Metz.

New Remedies—J. J. Delamater.

Typhoid Fever—J. Pomerene.

Delegates to Pharmaceutical Association at Washington, D. C.—M. B. Bright, R. Thompson, J. Harman.

Delegate to Indiana State Medical Society—E. B. Stevens.

Delegate to Kentucky State Medical Society—J. D. Robinson.

DELEGATES TO AMERICAN MEDICAL ASSOCIATION.

Delegates.	Alternates.
W. S. Battles, Clinton Station.	Thos. W. Jones, South Bloomfield.
D. B. Woods, Warren.	Jas. Bronson, Newton Falls.
W. W. Dawson, Cincinnati.	A. H. Baker, Cincinnati.
C. G. Comegys, Cincinnati.	I. S. Dodge, do
David Judkins, do	J. S. Davis, do
Geo. Mendenhall, do	W. H. Mussey, do
S. M. Smith, Columbus.	John Dawson, Columbus.
J. W. Hamilton, do	John B. Thompson, do
W. L. McMillen, do	R. N. Barr, do
I. I. Delamater, Cleveland.	M. K. Cushing, Cleveland.
T. G. Cleveland, do	P. Thayer, do
J. Lane Cassels, do	G. C. E. Weber, do
R. G. McLean, Lockbourne.	W. M. Prentiss, Ravenna.
L. D. Griswold, Elyria.	E. Kelley, Elyria.
A. Metz, Massillon.	F. T. Hurxthal, Massillon.
A. Carey, Salem.	W. Hughes, Berlin.
I. L. Crane, Ashland.	I. P. Cowan.
G. F. Mitchell, Mansfield.	I. P. Henderson, Newville.
R. R. McMeens, Sandusky City.	D. Tilden, Sandusky.
G. V. Dorsey, Piqua.	B. Neff, Piqua.
K. J. Shackleford, Troy.	J. W. Tullis, Troy.
John Davis, Dayton.	C. McDermot, Dayton.
W. H. Lamme, Centerville.	S. G. Armor, do
J. S. Taylor, Carrollton.	J. Clements, do
L. Slusser, Canal Fulton.	G. W. Brooke, Ellsworth.
E. Gaston, Morristown.	W. Estep, Loydsville.

C. C. Hildreth, Zanesville.
W. Morehead, do
Isaac Hoover, Barnesville.
R. Gundry, Dayton.
W. W. Jones, Toledo.
R. Rodgers, Springfield.
W. P. Kincaid, Neville.
S. Loving, Columbus.
J. C. Hubbard, Ashtabula.
R. J. Patterson, Columbus.
E. W. Howard, Akron.
B. S. Brown, Bellefontaine.
E. S. Lane, Sandusky.
S. Bonner, Cincinnati.
R. Hamilton, Morristown.
J. Campbell, Uniontown.
W. L. Schenck, Franklin.
C. Robertson, McConnelsville.
J. M. Bigelow, Lancaster.
I. N. Gard, Greenville.
L. Rigdon, Hamilton.
E. L. Miner, Lithopolis.
J. T. Updegraff, Mt. Pleasant.
J. W. Russell, Mt. Vernon.
J. A. McFarland, Tiffin.
E. P. Fyffe, Urbana.
J. Haines, Dayton.
G. W. Boerstler, Lancaster.
M. B. Wright, Cincinnati.
Z. C. McElroy, Zanesville.
H. Culbertson, do
J. Moore, Marietta.
T. B. Johnson, Xenia.
H. J. Donahoo, Sandusky.
I. Kay, Springfield.
J. C. Kennedy, Batavia.
C. P. Landon, Westerville.
P. Allen, Kinsman.
W. J. Scott, Shadesville.
T. W. Gordon, Georgetown.
W. D. Scarf, Bellefontaine.
C. Cochran, Sandusky.
B. F. Richardson, Cincinnati.
John H. Tate, Cincinnati.
J. P. Tingle, Cambridge.
W. Mount, Cummingsville.
W. L. Peck, Circleville.
E. Williams, do
A. Koogler, Greenville.
W. Huber, Hamilton.
T. H. Olds, Circleville.
L. W. Foulk, Chillicothe.
M. Thompson, Mt. Vernon.
J. N. Burr, do
J. M. Briggs, Iberia.
E. Carney, Berkshire.
G. F. Mitchell, Mansfield.
J. A. Murphy, Cincinnati.

On motion, the Society adjourned.

Ohio White Sulphur Springs,
Thursday, June 9, 1859, 8 o'clock P. M.

The Society was called to order by the President.

On motion, the blank in the resolution on page 13, in reference to the time of meeting, was filled by inserting "*second*"—making the time of the next meeting the second Tuesday of June, 1860.

Dr. J. W. Hamilton presented the following resolutions, which were, on motion, unanimously adopted:

Resolved, That we hereby intimate our gratitude to Andrew Wilson Jr., Esq., the urbane and gentlemanly proprietor of the "Ohio

White Sulphur Springs," for his boundless hospitality and liberality, as exhibited in the princely banquet tendered this Society.

Resolved, That as citizens of Ohio, and conservators of the public health, we realize the greatest satisfaction in contemplating the ample and admirable arrangements for recreation, the promotion of health, and the cure of disease, which his enterprise and liberality have placed in our midst.

Resolved, That in the rare healthfulness of the locality, its varied and delightful scenery, its four varieties of mineral and medicinal waters, provided by a beneficent Providence in such abundant and unfailing supplies, we have a combination of hygienic and medicinal facilities, challenging comparison with the best watering places of the country and of the world.

Resolved, That we most cheerfully recommend the "Ohio White Sulphur Springs" to the seekers of pleasure, recreation or health, as affording the most ample and desirable facilities for the attainment of these ends.

Resolved, That the papers of the State be requested to publish these resolutions.

On motion, the Society adjourned.

L. FIRESTONE, *President.*

W. W. DAWSON, } *Secretaries.*
A. METZ, }

APPENDIX.

[A.]

REPORT OF COMMITTEE ON OBSTETRICS.

BY A. METZ, M. D., CHAIRMAN.

THERE is connected with the department of Obstetrics much that is gratifying to the physician. The perfection of the *art* is such, that at the present day an error in diagnosis is scarcely to be looked for. The accoucheur meets the worst cases with firm nerves, under the full conviction that he is competent to deliver his patient, of whatever character the presentation may be. It would be a pleasant task to enumerate the achievements of the obstetric art, and dilate on the importance of modern progress. But that which is fully comprehended, each one has the satisfaction to realize in his daily practice at the bedside. It is pleasant to dwell on our victories; it is more instructive to ponder on our failures. I have therefore concluded, in discharging the duty of making the annual report on this subject, to confine myself chiefly to a brief review of some of the more important topics of practicable interest, on which there is at present a diversity of opinion. It should be borne in mind, that on all those great practicable questions it is the duty of the most humble member of the profession to form an opinion, on which to act in the hour of danger. And if, in the following pages, I shall sometimes express opinions at variance with some high authorities, it will be done with the utmost deference, and not with the presumption of placing myself in a position as the equal of those with whom I may differ.

I will also endeavor to collect and arrange the obstetric news of the year, in doing which I can only pretend to the limited facilities of the county practitioner for the acquisition of such material. In carrying out this plan of arrangement within the appropriate limits

of an annual report, I cannot enter into a critical consideration of any subject, but I will of necessity be compelled to make my compilations and remarks merely allusive and suggestive.

First, in the usual order of arrangement, *abortion*, that frequent and much-dreaded accident of pregnancy, claims a brief notice. Doubtless every experienced practitioner can recall to mind scores of anœmic sufferers, with their blanched countenances and broken health, clearly resulting from this trouble. The chief and most frequent evil attendant on abortion is excessive loss of blood, which the physician can fortunately prevent, when timely consulted, by the prompt and proper resort to the means prescribed by our obstetric authorities.

All agree that the fullfillment of the *causal-indication* essentially consists in the evacuation of the uterus, which should always be accomplished as soon as possible, should the efforts of the uterus fail to effect it in time to save detrimental hemorrhage. This can ordinarily be done by turning out the ovum with the finger. When evulsion is not practicable in consequence of rigidity of the os and want of dilatation, we have still a certain means in the properly applied tampon, to hold the hemorrhage in check, and which also hastens dilatation, by exciting uterine contractions. In certain cases where the fœtus is expelled, leaving the placenta back, with a rigid os and elongated neck, the treatment becomes more difficult, and the evacuation of the uterus, with the finger, impossible. The important question here presents itself, whether the placenta shall be left in utero, trusting to its maceration; or, whether it shall be extracted with the aid of instruments? The objections to leaving the placenta to decompose in the uterus are so great, in my estimation, that I have never risked it. The idea of not being delivered, leaves the patient in an anxious state of mind; it leaves her liable to long-continued contractile pains, and too much flooding; it leaves her in an uncomfortable condition from offensive discharges; it leaves her strongly predisposed to metritis, or to purulent absorption; and finally, the period of its expulsion is altogether uncertain, as the physiological connection between the placenta and uterus is not always broken up under such circumstances. A year ago, I saw a woman almost in *articulo mortis*, who, I was informed, had had for a month past contractile pains and flooding every day. I found the os fully dilated, with a living, firmly adherent placenta at the fundus, which was detached with the finger. The hemorrhage ceased, and the woman finally recovered.

It is urged as an objection to the use of instruments, that there is danger of wounding the uterus, and exciting traumatic inflammation; and there certainly is force in the objection. No surgical procedure, however, is proof against *maladresse*. As for myself, whilst making the use of instruments the dernier resort, I would yet cheerfully have recourse to the crotchet, the placenta forceps, or any proper implement, in preference to the unpleasant alternative of leaving the secundines undelivered.

In a discussion on this subject, before the New York Academy of Medicine, last June, Prof. Barker, while he advocated the necessity of evacuating the uterus, said that he had never been compelled to resort to the use of instruments for this purpose. His method of treatment is this: "A compressed sponge of the proper size is introduced into the cervix, which not only effectually prevents loss of blood, but excites uterine contractions, so that the ovum, or retained portion of the placenta, is completely detached. In conjunction with this," he says, "I always direct an enema of the oil of turpentine (with starch) to be thrown into the rectum, and retained as long as possible, repeating it as soon as it comes away. The turpentine in this way not only acts as a hemostatic, but as a most efficient oxytocic."

The investigations made within late years by Doctor Bennett and others, with the speculum, have furnished us with the important fact that chronic inflammation of the cervix uteri, is quite a prolific cause of abortion. The knowledge of this fact enables us to institute a prophylactic treatment, based on a well understood pathalogical condition. This is a great improvement on the late plan of absolutely confining every threatened case of abortion to bed, under the idea of thus preventing it, by quieting uterine irritability. It seems highly probable that the local treatment of the uterus, with the use of the speculum, as recommended by late authors, will in most instances cure the abortive habit.

Ergot, as a hemostatic and oxytocic, appears to be less popular than in years past, in consequence of the uncertainty of its effects. It is a well established fact, that even in the hemorrhage of abortion, its indiscriminate use is inadmissible. It has been claimed that this great want of uniformity in its action, is owing to deterioration of the drug, which may be the case sometimes, but is far from a satisfactory explanation. For instance, let it be administered to a woman in labor, and in a short time there will be severe, peculiar, almost in-

cessant contractile pains. Again, let it be given to another woman in labor—using of the same parcel of the drug—and instead of increased uterine contractions, there will be nausea, depression and uterine inertia. Hence we must infer that the physiologico-pathological conditions of the two cases were different—the one proper for its use, and the other improper. I conceive that, with our present knowledge of the *modus operandi* of this drug, the selection of the cases adapted to its use is frequently a matter of extreme difficulty, if not an impossibility. It is true, that in our text-books we have full rules laid down to guide us in its administration, which, however, have reference only to the mechanical relations of mother and child. Even in following those directions, we find it often impossible to determine the amount of resistance to be encountered during delivery. The differential diagnosis between inefficient action of the womb, and impotent action, is frequently as difficult as it is eminently important.

The solution of the unsettled question, as to its precise effects on the system, is important as a guide in the selection of cases proper for its use. It has generally been considered a special stimulant of the excitomotor nerves of the uterus, or at least as a stimulant of the lower portion of the spinal cord. With this view I administered it several years ago to a girl of fourteen years of age, laboring under complete paraplegia. After strychnia, electricity, and other remedies had failed to produce any apparent benefit, the ergot acted very promptly—the first motion of the toes and feet following about six hours after the administration of the drug. It was continued every second day, with decided benefit following each administration, until she had entirely recovered. What the manner of its action was, whether it stimulated the lower portion of the cord, or whether it produced its good effects by relieving congestion of the spinal membranes, by contracting the walls of the blood vessels, I will not pretend to say.

The fact that ergot is inadmissible in nervous exhaustion, is often overlooked. Given under such circumstances, either as an oxytocic or as a hemostatic, it will most certainly aggravate the condition it was intended to relieve.

Prof. Barker says: "As regards the hemorrhage which occurs after the delivery of the placenta, the distinction made by various authors, (first clearly pointed out, as I believe, by Dr. Beatty, of Dublin,) as to the two opposite conditions which favor this formida-

able accident, I regard as very important. 'The first is the full plethoric habit, where the heart is in strong and rapid action, and all the vessels are gorged with blood, as is indicated by the flushed skin, headache, thirst and bounding pulse. The second is the weak, delicate, lax fibred state, characterized by pale countenance, spare limbs, slow and weak labor pains, and feeble, though it may be rapid, pulse.' In the first class, the hemorrhage within certain limits may be beneficial, and it is in these cases that the use of ergot proves especially valuable, from its known power of lowering the circulation, as well as of securing the permanent contractions of the uterus. We have no fear of its depressing influence, and we can rely with a good deal of certainty upon its power, in these cases, of securing the latter object.

"But the propriety of its use in hemorrhage occurring in the second, is often doubtful. In these cases it does nothing to excite the contractions of the exhausted uterus, its depressing influence producing just the opposite result. I must especially protest against the large doses which are in these cases sometimes administered, with the vain hope of stimulating the exhausted organ, the only effect of which is still more to debilitate it. I can positively aver, that in more than one instance, I have seen death result from its injudicious administration under those circumstances."

Prof. Murphy says: "From its indiscriminate use, it has often failed in its effect. Ergot is quite inefficient in nervous exhaustion of the uterus, because so far from acting as a stimulant, it seems to have a sedative effect (at least upon the heart), while its specific action is obvions the moment that exhaustion is removed. Opium is therefore of the highest value in saving a patient from the consequences of extreme flooding; ergot, in preventing such hemorrhage from taking place. Both remedies may be used in the same case, but one can never supply the place of the other."

In the Transactions of the Berlin Medical Society for April, 1858, is an interesting paper on *Secale Cornutum*, as a remedy in diseases of the eyes and other chronic affections, forwarded by Professor *Von Willebrand*, in Helsingfors. He says that, from ample experience, he is satisfied that in laxity of the walls of the blood vessels in local hyperæmia, ergot has the same contractile effect as it has on the muscular fibres of the uterus, and that the two textures are of analogous structure. That it acts as a hemostatic by its contractile powers on the vascular system. He repeatedly reduced the volume of the

heart to the extent of several lines in twenty-four hours under its use. With this view of its effects, he has administered it in hypertrophy of the heart, in chronic diseases of the eyes, in galactorrhæ, in chronic affections of the uterus, and in various other chronic diseases, with good results. On account of our vague idea concerning its effects, the difficulty of selecting with certainty the cases proper for its use, and the well known danger to the life of the child, I deem it an agent only to be resorted to with the greatest caution.

Fortunately, we have a safe and certain remedy in the *Forceps*, for inefficient action of the uterus, as well as for most cases of impotent action. We have portrayed for us in our text-books the dangers likely to result from the too free use of the forceps. In my estimation, there is frequently an opposite error committed. Labor is permitted to continue until the soft parts are in danger of sloughing, the strength of the woman exhausted, and the child has perished from long-continued compression,—all of which can be prevented by timely resort to the forceps. This neglect to deliver within the bounds of safety, for mother and child, is especially apt to occur in the first labors. The important question frequently presents itself in obstetrical practice—"Which is safer for mother and child, further delay, or delivery with forceps?" To resort uselessly to forceps is bad; to permit a woman to suffer for hours, and let the child perish for want of their use, is worse.

Chloroform is so well and favorably known to the profession at the present day, that it would be idle to say much respecting its use in obstetrical practice, as hardly any physicians would oppose it. In addition to its pain-destroying power, it is highly beneficial as a relaxant. In protracted labors, where there is nervous contractility of the os, and the soft parts have become irritable and dry, putting the woman under the full influence of chloroform, generally produces speedy relaxation, the heat passes away, and the normal moisture is reëstablished. For this purpose it is frequently by far the happiest remedy in our possession.

The following is an extract from a letter by Dr. McPheeters, from the Dublin Lying-in Hospital, (and which I copy from the May number of the Ohio Medical Journal): "An interesting case occurred a few days since, showing the advantages of chloroform. It was a case of retained placenta, caused by spasmodic contraction of the cervix uteri. After waiting four hours without result, Dr. McClintock decided to administer chloroform, and to introduce the hand; gradually dilate

the os uteri, and bring away the placenta. The patient was, with considerable difficulty, brought under the full influence of the chloroform, and on introducing the hand into the vagnia, the os uteri was found to be dilated and the placenta extruding, so that it was easily extracted without introducing the hand into the uterus, which may justly be considered one of the most dangerous operations in obstetrics."

Rigiditg of the Os uteri Requiring Incision.—Dr. Kristeller recently read a paper before the "Gesellschaft für Geburtshülfe in Berlin," on incision of the rigid os uteri. He says that incision of the rigid cervix uteri of the accouchée is, (when practiced at the right time, and under the proper conditions,) a remedy which cannot be replaced by ipecacuanha, opium, chloroform, belladonna, or the douche; that it is gentle and prompt in its operations—much less dangerous than pronounced by distinguished authors—and does not deserve the neglect that it has received from the profession. He reports ten cases wherein he practiced it with complete success,—no unfavorable result following any case. It must not precede the ordidary means recommended to effect dilatation, but only be resorted to when other measures have failed. His indications for the practice are: Parchment-like toughness and firmness of the vaginal portion, as sometimes met with in aged *prima paræ;* hypertrophied, fibrinous and knotty textures, resulting from inflammatory processes; fibroid growths and cancerous infiltrations; and, finally, obstinate spasmodic contractions of the os.

Dr. Gardner says: "Scientific research has now, as it appears to me, demonstrated incontestably the anatomical division of the hollow organ, so long known as the uterus, into two portions—the neck and the body. Henceforth we must recognize two distinct organs; the one, the cervix, composed of firm but elastic structure, scantily provided with blood vessels, and in which but a small trace of a coarse fibre of muscular tissue, capable of much hypertrophy, abundantly supplied with both arteries and veins, also with nerves, concerning which no little research has been undertaken and some controversy has resulted, especially between Drs. Lee, Snow and Beck." Dr. Gardner also says: "Sometimes the os, by a violent pain, is torn off and forms a perfect ring, as lately shown at the Pathological Society in this city." He has practiced incisions three times under similar conditions as those described by Dr. Kristeller, and with an equally favorable result. The conditions demanding this procedure

must be quite rare. I notice, in a recent report of Credé's to the Berlin Obstetrical Society, that out of 1220 cases, he practiced bloody incisions of the os three times.

Prolapse of the Funis.—Truth can ordinarily be recognized by its simplicity, and by the direct manner in which it addresses itself to the understanding. Such claims the suggestion of Dr. Thomas, on the "Postural Treatment of Prolapse of the Funis," appears to present. Statistics prove that, hitherto, in more than one-half of the cases on record the children have perished from this fortunately rare accident. Dr. Thomas, in investigating this subject, came to the following conclusions: "First, that the causes of the persistence of this accident (whatever may at first have produced it) reduced themselves to two, the slippery nature of the displaced part and the inclined plane offered it by the uterus, by which to roll out of its cavity; and, second, that the only rational mode of treatment would be inverting this plane, and thus turning to our advantage not only it, but the lubricity of the cord, which ordinarily constitutes the main barrier to our success. This I found could be readily accomplished by placing the woman on her knees, with the head down upon the bed, in the posture assumed by eastern nations in worship, and now often resorted to in surgical operations upon the uterus and vagnia. Let it be remembered, that the axis of the uterus is a line running from the umbilicus, or a little above it, to the coccyx, and it will be seen that, by placing the woman in this position, it will be entirely inverted." He also claims for this position the beneficial influence of atmospheric pressure, turned to good account by Dr. Marion Sims, in operations on the pelvic viscera.

Dr. Thomas lays down the following rules for his "Postural Treatment:"

1st. "That if the cord be detected in the unruptured bag, the woman be at once placed in position before escape of the waters, and that no efforts at return of the prolapsed part be made by the hand. The position alone will, I believe, cause its return to the uterus; and, if it does not, we may do so, manually, as soon as the waters escape.

"2nd. That if the pelvis be so fully occupied by the presenting part as to preclude return of the cord by the hand, a gum elastic catheter and tape be used as a *porte-cordon*.

"3d. That no manipulations be commenced until the woman be placed in position; and,

"4th. That in returning the cord, the whole hand be passed into

the vagina. This is essential to success — the fingers alone will fail."

Dr. Thomas has been able to test his theory in but few instances, wherein, however, it proved entirely successful. Should it prove correct in practice, as I have no doubt it will, it will be the most useful suggestion that has been made for years in connection with obstetrical practice.

Placenta Prævia.—Since the time of Levret and of Rigby, the precise nature of placental presentations has been familiar to the profession, and since when their management has hardly undergone any variation, which is to resort to forced delivery whenever practicable; when not practicable in consequence of rigidity of the os, the tampon is used to hold the hemorrhage in check until the parts will permit turning. This practice, so long of almost universal adoption, having the sanction of great names, has recently been protested in certain quarters of the profession, and by no one so earnestly and ably as by our respected countryman, Professor Miller. In consequence of the enormous fatality to both mother and child under the treatment hitherto adopted, any reasonable proposition claiming to reduce the great mortality of this trouble, deserves a candid consideration.

Professor Miller says: "In considering the claims of forced delivery to our acceptance, the first questions which would naturally be propounded by an earnest inquirer after truth, are, What success has crowned it? and, How many women and children have been saved by its interposition? To these questions we are now enabled, thanks to the indefatigable investigations of Professor Simpson and others, to reply satisfactorily by the evidence of statistics. The result of delivery by turning, in 421 cases of placenta prævia, collected and tabulated by Dr. Simpson, was fatal to the mother in 144 instances, which is more than one in three (one in two and nine-tenths), the result to the children not being stated—a fatality but little less than that attendant upon the Cæsarean operation, which is, according to Dr. Churchill, one in two and four-tenths."

From all the statistics we have on the subject, it appears that one-third of the mothers, and two-thirds of the children, have been lost in placental presentations when delivered by turning.

Among the methods of treatment proposed as substitutes for turning, most prominently are those of M. Gendrin, to evacuate the liquor amnii, with a silver catheter, through the placenta—trusting to

the pains and compression, from the advancing head of the child, to control the hemorrhage; the method of Professor Simpson, which consists in the entire artificial separation of the placenta; and that of Professor Miller, which he denominates a modification of the Puzonian method, and which "consists in originating expulsive contractions of the uterus, by the tampon, or plug, and then puncturing the membranes, relying on the tampon to control the flooding until the liquor amnii is evacuated." The method of Gendrin is unsustained by sufficient clinical demonstration to test its value. According to the statistics hitherto collected, it appears that Professor Simpson's method has been practiced with results more favorable to the mother, and not less so to the child, than has been obtained under the ordinary treatment. Professor Miller says that he has no experience with any other treatment than that detailed by him, which he has practiced with uniform success, as far as the mother is concerned. He feels confident that his method may advantageously supersede turning in all cases, except where malposition of the fœtus demands version on its own account.

In the Allgemeine Central Zeitung of Berlin, for the 18th of last November, Dr. Gliscynski reported ninety cases of Placenta prævia, collected from various obstetrical clinics, of which sixty-eight were vertex presentations. In forty-nine cases *accouchement forcé* was resorted to—eleven times turning with extraction, ten times rupture of the membranes, and fifteen times nature accomplished the delivery. Of the children, there were sixty-two saved, and twenty-eight lost. Of the mothers, there were seventy-six saved; and of the fourteen fatal cases, *accouchement forcé* was resorted to in twelve.

Dr. Gliscynski also reports nine cases treated by himself. He uses the caoutchouc bladder tampon, which is filled with ice-water. Out of the nine cases reported, he used the bladder tampon, and afterward turned and extracted in three cases, with a loss of two of the mothers. In six cases he used the bladder tampon, ruptured the membranes, and then left the delivery to nature, and saved all the mothers.

Statistics, then, seem to establish the fact that version in placental presentations, has proved decidedly more fatal than any of the other methods of treatment named. Among the proposed substitutes for version, the method of Professor Miller appears most meritorious.

Should it fail in some instances to sufficiently control the hemorrhage, we can then resort to entire detachment of the placenta, as

recommended by Simpson. I practiced turning twice in placenta prævia, and although the mothers were saved, the escape was so narrow as to render a repetition of the procedure quite uninviting. It is a dreadfully unpleasant thing to lose a patient under such circumstances. The physician's best consolation is the consciousness that he exerted his best efforts, based on the best sources of information within his reach. Any one too modest to decide positively what line of action to pursue, ought also to be too modest to place himself in a position in which indecision may cost the life of a fellow-being. On being summoned to such a case, the accoucheur generally finds the emergency such as to demand his immediate and prompt action, in order to save the two lives intrusted to his care. Ordinarily there is no time for reflection, for posting up, or for consultation; but the demand for the prompt exercise of the utmost skill and judgment in his possession is imperative. It is for each one carefully to decide what to do in the hour of emergency, as it is a matter affecting each one's reputation, and his relations with his conscience and his God.

Cephalic Version, although practiced for a number of years by a few European accoucheurs, has never received much attention from the mass of the profession. Whether this almost universal neglect proceeds from the impracticability of the procedure, or, whether the discouraging notice given it by obstetrical authorities, has so completely dispelled all faith in it as to prevent all efforts at its performance, is a question that your committee is incompetent to decide. I notice, in some recent statistics by Credé, that out of 1241 births, he performed podalic version fifteen times, and cephalic version twice. I have not had access to quite recent statistical information on this subject, but I presume the maneuver is rarely resorted to.

Dr. Wright, in his "Prize Essay," read before this society, is the first and only advocate of cephalic version on this continent, as far as I know. His is, also, the most clear and scientific description of the manner of operating that is on record — which he claims to be original with him. Instead of following systematic authors in the operative directions, to merely elevate the shoulder and push it in a direction opposite the situation of the head, Dr. Wright applies the corrective force, from the beginning of the maneuver, in such a manner as to give the body of the child a curvilinear movement, so as to glide it along the concave uterine surface until the head itself enter the pelvis strait, or until it is near enough to be grasped by the hand, and placed in position.

Professor Miller, in the last edition of his Treatise on Obstetricy, has given Dr. Wright's essay a critical examination. Like nearly all obstetricians, he appears not to be predisposed in favor of the operation. He concludes—

"1. That in simple cases of shoulder presentation, either cephalic or podalic version may be practiced, the former being preferable (provided it can be accomplished), on account of the greater probability of saving the child.

"2. That, whilst cephalic version is not absolutely impracticable, in complex and even in complicated cases of shoulder presentation, it is more difficult of performance, and fully as dangerous, both to the mother and child, as podalic version, in one or another of its forms."

Dr. Wright says, "That, although the membranes may have been long ruptured, turning by the head can be accomplished with great facility." I know this to be true, in some instances at least, as the following case will illustrate:

November 18, 1858, I was called to visit Mrs. Meininger, a robust, well-formed woman, in her seventh labor. Her former births were easy. I found her in the care of a *sage femme*, educated in Europe. One living child was born, and the arm of another in the vagina, in which position, I was informed, it had been for two hours. The midwife had made some efforts to turn, and I found the patient in the ordinary position, across the bed. The shoulder was pushed down into the pelvis with great force, with almost constant and severe pains. The child was in the scapulo-sacral position of the right shoulder. On attempting to introduce the hand to bring down the feet, I found the uterus so firmly contracted around the child, and the pains so violent, that I deemed it unsafe to persist in my efforts. I then concluded to try cephalic version, with which intent I flexed and returned the arm across the breast of the child, which was accomplished with great facility. I then grasped the shoulder, and gently, but persistently, pushed it in the direction of the left iliac fossa, whilst I manipulated with the right hand externally, as directed by Dr. Wright. After persevering in this manner for ten or fifteen minutes, I relinquished my hold on the shoulder, which was then considerably elevated, when I found the head so near that I could readily glide my hand over the vertex and place it in position, about a minute after which she was delivered of a still-born child. The mother recovered. I was only thirty minutes in the house until the woman was put to bed, delivered. I have never performed podalic

version with so much ease to myself, and so little apparent violence to mother or child. I am altogether certain that, in this case, cephalic version was the most safe and speedy method of delivery.

The great advantage to be expected from an early resort to cephalic version is, that it offers as great a chance for the life of the child as if the vertex had originally presented; whereas, in podalic version, every third child is lost. With this view of the subject, the objection urged by Professor Miller, that cephalic version is "an unfinished operation," has no weight. A mother is willing to suffer a few hours longer to insure the safety of her child. If necessary, after version, we can resort to the forceps to perfect delivery.

After the shoulder has been impacted a few hours in the pelvis, we do not expect the child to live, and then the most speedy and least violent method of delivery is the right one, whether that be podalic or cephalic version.

Puerperal Diseases.—After accouchment, the important consideration presents itself to the medical attendant, whether his patient is in a physiological or a pathological condition. This is sometimes difficult to determine, as the one frequently runs imperceptibly into the other, without leaving a line of demarcation. Viewed in the light of a physiological necessity, her condition may be considered one of health; when we regard the mechanical injuries, and important functional alterations accompanying the forcible metamorphosis of parturition, her condition presents the aspects of disease. The exhausted condition of the nervous system, and the *quasi-traumatism* of the accouchée, constitute a strong enough tendency to disease to demand for a season—especially during some grave epidemic influence—the earnest watchfulness of the physician. Under no circumstances, perhaps, is it so highly necessary early to detect a tendency to disease as immediately after delivery. It is important, in the least disturbance of the physiological condition, to know whether we have merely hysteria, hysteralgia, after-pains, ephemeral fever, or a gastric fever to contend with, or whether a grave zymotic disease is threatening to rob us of our patient. In the impressible condition of the puerpera, it is highly essential that the nervous system be not unnecessarily excited. The practice common in some regions of the country, of all the women of the neighborhood calling on the puerpera a few days after delivery, is improper and injurious, and during the prevalence of a puerperal epidemic influence, should most positively be forbidden.

Among the most alarming indications of impending mischief, after delivery, is a frequent pulse. Copland says: "The remark of Dr. John Clark, that no woman should be considered as safe whose pulse exceeds 100, is certainly just; and I may add, that if the pulse exceed 110, then the risk of puerperal fever, or of internal hemorrhage having commenced, is very great; and a careful examination of all the symptoms of the case should be made, and the coming mischief anticipated, and if possible, prevented."

Dr. Bouchocourt, of Lyons, within the past year, instituted a series of observations on healthy puerpera. He examined the neck of the uterus, and the vagina, by the touch and the speculum, and also the lochia by the microscope. I translate the conclusion at which he arrived, from *La Revue Medicale:*

"1. That there is, in the most simple puerperal state, among other local lesions, a traumatic inflammation of the neck of the uterus, characterized by swelling, heat, pain, redness, exfoliation of a portion of mucous membrane, and suppuration. 2. At the fourth, and sometimes the second day, the lochia contain pus globules. 3. A reparative process follows, consecutive to the exfoliation; then the pus diminishes, and the epithelial cells are multiplied. 4. At the eighth day, the characteristics of the inflammation are less marked, but still persist; at this time the neck becomes more regular, less voluminous, and closes —the anterior lip remaining voluminous a longer time than the posterior. 5. At the fifteenth day cicatrization is not complete, but is progressing; it is perfected between the third and the fourth weeks. 6. Its characteristic is to heal from the circumference to the center. The orifice and the cavity of the neck show traces of ulceration the longest; they are seen after abortion, in certain cases, two or three months. 7. The intensity of the milk-fever often appears to be in proportion to the extent of the inflammatory action of the neck. 8. There is not only inflammation of the neck, but often also of the vagina and vulva."

Caustatt says, that milk-fever is a connecting link between the physiological and pathological puerperal conditions; that it is a tranmatic fever; that the breasts are sometimes full of milk before accouchment, and yet the milk-fever will follow two or three days after; and that milk is often secreted without any accompanying fever.

The puerpera being in the quasi traumatic condition described, it is not a matter of surprise that grave inflammatory troubles often take place, it being a law of general pathology that morbific influences spend their force on the *Locus minorus* resistentiæ.

The important question here presents itself: Whether there is an idiopathic *Puerperal Fever*, a disease presenting characteristics peculiar to itself; or whether the so-called *Febris Puerperalis* is made up of the various local diseases, or diseased processes to which the woman in child-bed is liable? From the teachings of those who have written on the subject, we cannot decide what to understand by the term. Some apply it to every febrile disease of the accouchée; others confine it to those fevers having dangerous characteristics; others, again, confine it to the grave endemic or epidemic influences sometimes so fatal to women in child-bed; and with many, including our distinguished countryman, Professor Meigs, it is mainly a local inflammatory disease of the uterus, peritoneum, or the uterine veins.

Caustatt says: "These ambiguous opinions have their origin mostly in one-sided views of the disease in one epidemic, confined to the small field of one man's practice; each describing the disease as he sees it, and believing himself qualified to present his own experience as the universal experience; the fatal character of the disease is seen in many places under its different forms, which strengthens each one in the opinion that he sees the same disease, and that the difference in appearance arises only from the superficial observation and erroneous judgment of his confreres. The results of the teachings of pathological anatomy, which are just as different in different epidemics, strengthens each one in the opinion that he alone has discovered truth." (Specielle Path. and Therapeia.)

Copland expresses similar views, and adds: "Thus Armstrong, Hey, Mackintosh, Campbell, etc., who observed chiefly inflammatory forms of the disease, accompanied with a sthenic diathesis, could not tolerate the idea that any other state of the disease existed, and were most ireful at J. Clark, Hamilton, and others, who believed that a low typhoid, or malignant form of, very different from that which they described, sometimes broke out."

Some of the greatest men in our profession still contend that it is merely a local phlegmasia, and not contagious. During the recent great discussion before the Academy of Medicine, the talented Trousseau commenced his speech with the paradox: "*L'histoire de la fièvre puerpérale ressemble beaucaup á celle de la dent d'or. Pour moi la fièvre puerpérale n'existepas.*" In fact, it would fill pages to note down the definitions given this disease by the various leading men of the profession. Your committee is impelled, with much def-

erence, to express the opinion, that the weight of authority and evidence favor the doctrine of the essentialty of its nature—that it is a ozymatic disease, primitively altering the blood, the local phlegmasia being only accessory and secondary.

It is important to make the distinction between specific puerperal fever, and simply sporadic cases of local inflammation. In the former, we have to deal with a specific poison primitively altering the blood; in the other, simply to subdue inflammation. The former is contagious, and rigid prophylactic measures are required to prevent its propagation; the latter is no more contagious than pneumonia.

The contagious character of this disease has been much disputed, and two of our most able, systematic authors in this country are strong advocates for non-contagion. At the present day, however, no fact in medicine appears better established, than is the contagious nature of puerperal fever. It is to be feared that the medical practitioner often neglects to exercise the precautions demanded by the contagious character of this disease. There is sometimes considerable reluctance in permitting patients to pass into the hands of other physicians, notwithstanding the obvious duty for absolutely refusing attendance on obstetric calls whilst visiting cases of puerperal fever. I refer to this matter, not because I believe that there is much difference of opinion amongst us, but because it, like the decalogue, will bear daily repetition as long as men are prone to sin. The learned Dr. Copland, after summing up the evidence for contagion, says: "Now, after the evidence I have adduced, and I could have quadrupled the amount, is it not criminal for any medical man to go from a case of this disease, or even from a case of erysipelas, to a female in the parturient or puerperal state, without using the strictest precautions?" Dr. Blundell says, that he had rather "that those he esteemed the most should be delivered, unaided, in a stable by the manger-side, than that they should receive the best help, in the fairest apartment, but exposed to the vapors of this pitiless disease." Dr. Holmes, in his excellent treatise on this subject, eloquently concludes: "There is no tone deep enough for regret, and no voice loud enough for warning. The woman about to become a mother, or with a new-born infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden, or stretches her aching limbs. The very outcast of the streets has pity upon her sister in degradation, when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law is arrested in its

fall, at a word, which reveals this transient claim for mercy. The solemn prayer of the liturgy singles out her sorrows from the multiplied trials of life, to plead for her in the hour of peril. God forbid that any member of the profession to whom she trusts her life, doubly precious at that eventful period, should hazard it negligently, unadvisedly or selfishly!"

If lately any important advancement in the treatment of this disease has been achieved, it must consist in the comprehension of the fact that we have no special therapeutics for it. Every returning epidemic presents some new features, which the physician will have to observe, and meet according to his ideas of medical philosophy. In the late discussion on this subject before the Paris Academy of Medicine, almost the only topic on which all the great disputants agreed, was, that the treatment, both prophylactic and curative, remains to be discovered.

As far as I can learn, the grade of action of this fever, in late years, has not permitted free abstractions of blood. The curative and palliative indications generally to be fulfilled, are to use eliminatives to lessen the toxæmia, and to allay nervous irritation and arterial excitement. To control nervous irritation, as every one knows, opium, in heroic doses, has, of late years, been advantageously employed. Our great American remedy, the veratrum viride, is admirably adapted to the fulfillment of some of the worst indications of puerperal fever. I feel so sanguine on this subject, that I have no hesitation in saying that, in this disease, it is superior to all other remedies. If you have a patient with a dry, parched tongue, the teeth and lips covered with sordes, an offensive breath, and delirium perhaps from toxæmia—on reducing the pulse to sixty beats per minute with the veratrum viride, in less than an hour the tongue will be moist and begin to clean, the sordes will cease to collect, the breath will be less offensive, and the delirium will pass away—leaving your patient calm and comparatively comfortable. Hence, I infer that it is an excellent eliminative, whatever its *modus operandi* may be. I believe that all will admit, that in sthenia, the frequent, bounding pulse can be controlled with the veratrum viride with more certainty and promptness than with the lancet; but the converse of this is not true, as the veratrum viride has an equally happy effect in asthenia. The pain from peritonitis or metritis, is better soothed by reducing the pulse to sixty beats per minute, than by the use of the lancet or opium. In asthenic fevers, I have repeatedly used it, in connection with qui-

nine and brandy, with good results; and in typhoid fever I have continued this treatment for a period of several weeks. In a discussion on puerperal fever, before the New York Academy of Medicine, Prof. Barker said: "Its use is not incompatible with that of stimulants. Experience has abundantly demonstrated the truth of this apparent paradox. One patient, who recovered, took every hour for two days one ounce of brandy and three to ten drops of the tincture veratrum viride—the quantity of the latter being determined by the frequency of the pulse, which was never allowed to rise above eighty per minute, although it sometimes fell down to forty. In another case, the veratrum viride did not seem to produce any effect on the pulse, which remained steadily above one hundred and thirty, until the condition of the patient was such that I decided to give brandy. After the first ounce was given, it fell to one hundred and eight; after the second, to eighty-six. Continuing the brandy, the veratrum viride was suspended for a few hours, and the pulse again rose to one hundred and thirty. After this, it was curious to note the fact that if either agent was suspended, the pulse would rapidly increase in frequency, while under the combined influence of the two, it was kept below eighty per minute."

I am fully aware that many interesting topics connected with the obstetric department have been left unnoticed—among the most important of which may be named the "Uræmic Convulsions of Pregnancy," at present receiving considerable attention on the conitnen of Europe. But I am compelled to stop, as I have occupied all the space consistent with propriety.

[B.]

EPILEPSY—ITS ŒTIOLOGY, PATHOLOGY AND TREATMENT.

BY JOHN G. KYLE, M. D., OF XENIA, OHIO.

ALTHOUGH scientific physicians, as a general rule, are accustomed to treat all of the more grave forms of disease upon the same general principles, yet in the treatment of *Epilepsy*, empiricism seems to have taken the place of science, and even amongst the most learned in our profession, no disease to which our race is incident, has caused more diversity of opinion, either with regard to its causation, pathology, or treatment, than this; and the most erudite and scientific physician, who exercises the utmost skill and philosophical acumen, in whatever *else* he does, treats this disease almost as empirically as the most impudent and illiterate quack, who, in his practice, neither regards cause or effect, nor exercises skill, judgment, or common sense. Hence empiricism and quackery, in all time past, have claimed *epilepsy* as *theirs* by exclusive right. This disease, of all others to which flesh is heir, is one of the most fearful in its manifestations, and in its direful consequnces, to those who are unfortunately the subjects of it. What disease is there which is more to be dreaded than epilepsy? It attacks all ages, sexes and conditions. It seizes and holds alike, in its tyrant grasp, the babe in its cradle, the youth in his buoyancy, the strong man in the pride of his strength, and the aged in his decrepitude, and drags them down to the lowest depths of degradation, both of body and mind.

The man of the strongest mind and most lofty genius is metamorphosed by its fearful, transforming influence into the driveling imbecile, or the senseless idiot. It changes the lustre of the brightest eye, and the godlike expression of the most beautiful countenance, into the blankness of fatuity—destroys the mind before the body, and makes *it* a wreck.

The life of the confirmed epilectic is a kind of *living death*, in which all that is lovely and desirable in life is swallowed up. The epileptic has no aspirations, no hopes, no bright future before him —all is dark and dreary, without the least glimmering ray of light to illuminate his dark and gloomy path to the tomb. His friends fear, while they pity him, and believe, from "hopes long deferred," that for him medicine can do nothing; that, for him, "there is no relief;" and that in the silence of the tomb, alone, will he find rest for his suffering body; and in that far-off country, into which pain or disease never enter; where tears never flow, but where all is peace, health and happiness, will his troubled soul be emancipated from the thraldom in which it has been so long held.

Is it strange, that we should attempt to do something to alleviate the sufferings of the poor epileptic, and, if possible, cure him of this hideously fearful disease?

Epilepsy has been called the *opprobrium medicorum*. I think, however, that in consequence of the many recent researches into the true *pathological condition* in epilepsy, that much may be done to cure the disease, and thus take away that opprobrium which has attached to the profession in consequence of its inability to successfully treat it. I believe that it can be treated as rationally, as scientifically, and as successfully as can be any of the more grave forms of disease which we meet in the routine of our daily practice.

Epilepsy, (from *epilambano*, to seize upon,) so called from the suddenness of the attack. It has many synonyms.

This disease belongs to the class of *neuroses*. The convulsions are not the only phenomena; lesions of sensibility and intelligence are coëxistent, and, in the milder forms of the disease, convulsions are not always present. The disease comes on in paroxysms, or rather, the effects or more prominent symptoms of it are seen or exhibit themselves in paroxysms. Sometimes the convulsions are periodical; but in many cases they recur at irregular intervals, and in others at distant periods. The *convulsions are not the disease*. They are the effect, and a consequence of a disease of the nervous system existing prior to the time of their occurrence.

The nervous system is divided into three parts, viz:

1st. The cerebro-spinal axis, which is in the form of a long cord expanded at its superior extremity, and is contained in the cavities of the cranium and spine.

2d. Forty-two pairs of long cords, called nerves, passing from the cerebro-spinal axis to every part of the system.

3d. A nervous cord, situated on each side of the spine, from the cranium to the pelvis, forming ganglia opposite each vertebral foramen, and called the great *sympathetic.*

The cerebrum, cerebellum and medulla oblongata are within the cranium, and are called the encephalon. The spinal marrow, the remaining portion of the cerebro-spinal axis, extends in the vertebral canal from the foramen magnum of the os occipitis above, to the cauda equina below.

It may also be divided, physiologically, into—first, the *cerebral system*, and second, the *spinal system*—the former, consisting of the cerebrum, and all the nerves which have their ganglionic centres in it, and the latter consisting of the cerebellum, medulla oblongata and medulla spinalis, with all the nerves which have their ganglionic centers in them.

The cerebrum is the largest ganglion, and most complex in its functions, of any of the nervous centers of the human body. Ideas, emotions, and intellectual operations belong to the cerebrum. It is through it that the mind or will acts upon and governs the body.

The cerebellum is divided into three lobes, one median and two lateral. Its principal function is to control muscular action. Dr. Andrews, in Transactions of Am. Med. Association, vol. xi, p. 430, says: "The muscular system of mammals and birds, is the part upon which the cerebellum obviously exerts most of its influence, whatever that influence be." The spinal system (consisting, as I have already said, of the cerebellum, medulla oblongata and medulla spinalis) is the reflex system—the excito-motor system—the system through which all muscular motion is effected. The nerves serve the purpose of conducting the influence generated in the ganglia, to the various organs, sensory surfaces and muscles to which they are distributed. These, sent to the sensory surfaces, serve the purpose of receiving impressions at their periphery and conveying them to the ganglion; hence they are called afferent or sensory nerves: while those distributed to the muscles, convey motor influence from the ganglion to the muscles, and are called efferent or motor nerves. There are two kinds of nervous matter, gray and white. The first is vesicular—the second, fibrous. The vesicular matter occupies an external position in the cerebrum and cerebellum, and the reverse in the spinal cord. The object of this arrangement in the cerebrum and cerebellum, is to afford a greater amount of surface to the vesicular portion of the ganglia: this is much increased in the cerebrum

by the undulations of the sulci, and in the cerebellum by its laminated arrangement. The amount of intellect depends more upon this arrangement of the vesicular portion than upon the size of the brain. In idiots, the convolutions on the surface of the brain are almost entirely wanting. The spinal cord is divided into a posterior and an anterior portion, connected by commissures. The nerves which originate in this cord have two roots; one from the posterior portion, which receives and conveys impressions to this portion; the other from the anterior portion, and carries motor influence from it to the nerves.

All motion is effected through the action of muscles. There are two kinds of muscular motion, voluntary and involuntary—the first under the control of the will; the latter is effected by or through the action of the reflex system. Involuntary motion is synonymous with reflex action. Excited reflex movements depend, not only on the spinal center, but on the nerves connected with that center. Marshall Hall says: "All reflex actions depend upon an *in-going* nerve, with its *origin* in the tissue excited on the spinal center, and an *out-going* nerve, with its *termination* in the muscles. * * You will be still more impressed with the importance of the spinal system, when I tell you that it is the nervous center and agent in *All the Functions of Ingestion and Egestion* in the animal economy, in *the entire class of convulsive diseases* in pathology, in the action of a certain *class of remedies*, and in the whole of that part of medicine denominated *obstetrics*. * * * The cerebrum, cerebellum, and in a certain sense, the medulla oblongata, may be regarded as the center of the cerebral system, of the nerves of special sense, and of volition, of intellect and of the passions, of pleasure and of pain. By its means we are placed in relation to all that is *external, psychically*. By its means we perceive; by its means we seize and use external objects. There is good reason to believe that intellect is seated high, the emotions lower, and the faculty of pleasure and pain lower still in their general cerebral center. Below the center the cerebral system is that of the spinal system. The spinal system includes the medulla oblongata and the medulla spinalis. * * * The pharynx and larynx are excited by eisodic (in-going) and exodic (out-going) branches of the pneumogastric; the pneumogastric is the internal exciter of inspiration, acting through the spinal center and the diaphragmatic and intercostals. Similar diastaltic nervous arcs constitute the nervous media through which emission, concep-

tion, parturition, etc., are effected. * * * The ganglionic system relates to all that is *within*, governing the peristaltic actions, assimilations, the secretions, excretions, etc. They are greatly under the influence of emotion and sympathetic action through the spinal center."

There are certain conditions necessary for the performance of the functions of these ganglia, the most important of which is a constant supply of oxygenated blood. The average weight of the human brain is about the fortieth part of the whole body, and it receives near one-sixth of all the blood in the circulation. This large supply of arterial blood is necessary for two purposes: first, to furnish the amount of oxygen necessary for the chemical change or action which takes place in the vesicular matter, at the time when nervous influence is generated, (as all vital action is connected with chemical change); and, second, it is required for the nutrition of the organ, not being required or necessary to the conducting power of the nerves. The elaboration of nervous influence is connected with chemical change. There is a chemical change in the vesicular portion of the brain at every thought; there is a union of oxygen from the blood, and a portion of the vesicular matter of that organ; or, in other words, there is a disintegration of one or more of those cells accompanying every action of the mind.

The phospates in the urine are much more abundant after great mental exertion. In order to account for this, we must suppose that the oxygen of the blood first unites with the phosphorus of the vesicular matter forming phosphoric acid; then this acid combines with other elements of the tissue, mostly ammonia, thus forming the phosphates which appear in the excretions. This appears to be the kind of operation which occurs at every elaboration of nervous influence. A beautiful illustration of reflex action and the elaboration of nervous influence from chemical change, the exciting cause being eisodic, is seen in the following example of its effects on the stomach:

Any irritating substance coming in contact with its internal surface makes an impression on the periphery of the in-going nerves; this impression is conveyed by them to the ganglia, in which their center is; the reception of this impression being connected with a chemical change in the ganglia, gives rise to an elaboration of nervous influence, which is conveyed by the out-going nerves to the muscular coat of the stomach, causing it to contract, and thus eject the offending body.

As the knowledge of the nervous system is a key to the diseases of *it*, so is a knowledge of the spinal system a key to *all convulsive* diseases.

Causes.—There are two forms of the disease—organic and inorganic. The former, depending on structural defect or disorganization—the latter on functional disturbance. Then, also, are two types of each form—the centric and eccentric; the first where the disease is internal—in the ganglionic center—the second where it is external to, or distant from, the ganglionic center. Of the organic form, congenital defects or superfluous growths are among the causes, as are injuries to any part of the spinal system, pressure upon the brain, spinal cord, or upon any of the ganglia or nerves by a foreign body, or abnormal growth, so as to infringe on any of the nerves or nervous centers of the spinal system; structural lesions of the cerebellum, whether from injuries or from inflammatory action, resulting in ramollissment or disorganization of either of its lobes, or of the medulla oblongata or spinal cord. Dr. Brown Sequard, in his *Researches on Epilepsy*, p. 4, says: "I have found that the following kinds of injury to the spinal cord are able to produce epilepsy, or at least a disease resembling epilepsy, in animals belonging to different species, but most upon guinea-pigs:

"1st. A complete transversal section of a lateral half of this organ.

"2d. A transversal section of its two posterior cornua of gray matter, and of a part of the lateral columns.

"3d. A transversal section of either the posterior columns, or the lateral, or the anterior alone.

"4th. A complete transversal section of the whole organ.

"5th. A simple puncture.

"Of all the injuries, the first, second and fourth seem to have more power to produce epilepsy than the others. * * * It is particularly after injuries to the spinal cord, which extends from the seventh or eighth dorsal vertebra to the third lumbar, that epilepsy appears."

Of the inorganic form of the disease, the causes are equally numerous. They are all alike in this—that their effect on the nervous system is that of *innervation*. Whatever weakens or debilitates the nervous system is a predisposing cause of the disease. The depressing passions—grief, fear, and hope long deferred, or great mental exertion or anxiety, from any cause, dissipation, debauchery, excessive venery, onanism, gluttony, irritation in the alimentary canal, as from worms, scybalæ, or foreign substances contained in it; func-

tional derangements of the secreting and excreting organs, as of the liver, kidneys, etc., and functional derangements of the digestive and assimilative apparatus. Mal-assimilation, either primary or dependent on indigestion, or other secondary cause, is one of the most frequent causes which predisposes to this form of the disease. If the assimilative processes be not normally carried on, many derangements to the whole system result therefrom; there is impure blood—the nervous system, lacking its natural and accustomed stimulus, becomes weakened and irritable, the muscles lose their tone, all of the secretory and excretory organs become functionally deranged, amongst the many consequences of which are, congestions, debility, innervation and the different diatheses—as the scrofulous, hemorrhagic, inflammatory, epileptic, etc.; congestion or apoplexy of the medulla oblongata, or medulla spinalis; violent congestion of the brain, so as to produce downward pressure on the medalla oblongata. This is perhaps the most frequent cause of convulsions in children and others, during the exacerbations of fever, or after violent bodily exertion. The cerebum may receive any amount of injury—it may be lacerated, broken down, or sliced away in pieces, until the whole of it be removed, and no convulsions will follow. While the like injuries to any of the spinal centres—unless the injury result in the entire destruction of the part—will invariably produce convulsions. When we see convulsions following injuries of the brain, we may then know that either the injury itself (or some of its immediate effects) extends to the spinal system. Dr. Hall says: "No lesion of the cerebal system, limited to the cerebum, *can* be attended by spasm or convulsion. No structural lesion of the spinal system, short of destruction, *can* occur *without* exciting spasm or convulsion." And also: "How does a disease of the spinal system, as a purely convulsive disease, affect the cerebral? for such is the frequent event, as we observe in epilepsy. Observe what occurs in the most *marked* cases of this dire malady. The head becomes fixed, or there is torticollis, by the action of *the muscles* of *the neck*, trachelismus; the jugular and other veins of the neck are compressed; the capillary system of the neck, the face, the intra-cranial structures congested; the veins start, the arteries throb; the cerebral center becomes implicated. *All is explained! all is intelligible!* Affection of the center of the cerebral system is extended to that of the spinal system—the medulla oblongata—by downward pressure; affections of the spinal system are extended to the cerebrum by *trachelismus!*

"I have already adverted (says Dr. Hall) to laryngismus as giving to epilepsy, and convulsive diseases generally, its most formidable character. This form of laryngismus is *spasmodic* or *convulsive*, excited through the spinal system. But there is another form of laryngismus. After a severe epileptic convulsion, the patient is left in a state of *coma*, or, as it may be termed, of *simple apoplexy*. * * * This laryngismus is not like the former, spasmodic, but paralytic. It is owing to compression or congestion—an apoplectic state—of the medulla oblongata, and *paralysis* of the pneumogastric nerve, in which every branch, as well as the recurrent laryngeal, is implicated."

The causes of death in epilepsy are nervous exhaustion, structural disorganization, and laryngismus.

Enough has been written, it seems to me, to show conclusively that the *key* to the causes of epilepsy is a knowledge of the *true spinal system*, and, as will hereafter appear, to its true *pathological condition*, and its *treatment* on rational and scientific principles.

Diagnosis—.If the convulsions come on suddenly, with an outcry at their commencement, and if the person attacked is standing or sitting, and fall down, the spasms being general, frothing at the mouth, bitten tongue, and insensibility, and followed by coma, we may, without fear of being mistaken, pronounce the convulsions to be of the epileptic kind, and the disease, of which they are a manifestation, epilepsy.

Prognosis.—The *cause* of the disease, whether centric or eccentric —its *form*, whether from structural lesion or functional derangement—its duration, the effects it has already produced on the general system, and especially on the center of the cerebral system—the age, habits, hereditary predisposition, with the *then* existing surroundings of the patient whom we may be called to treat, will, or may, all modify our opinions as to the results to be expected from our treatment in that particular case. When the disease is of the organic form and centric type, especially where there is either congenital defect or structural disorganization, we can have almost no hope of even ameliorating the condition, and none of curing it. But in the eccentric type of this form of the disease, the prognosis may generally be favorable. Of the inorganic form of the disease, of the eccentric type, especially in recent cases, and when the patients are young, and the exciting causes are in the alimentary canal, uterus, or in the eisodic nerves, the probabilities of a restoration to health are good. While in patients who are already debilitated from age, demented from the dis-

ease, or in those in whom a hereditary predisposition to the disease existed prior to its inception, and in those cases in which we can make no rational diagnosis, the prognosis would be unfavorable.

Treatment.—The first duty, and one of the most important to be attended to, and without which no rational course of treatment can be instituted for the cure of this or any other disease, is to make a correct diagnosis; and then we can proceed to use whatever means, whether medical or surgical, that may be requisite to meet the indications, as they exist or may arise in each particular case, and feel the consciousness that, even if we cannot cure all cases of epilepsy, we can, at least, treat all to which we are called in a rational and scientific manner, and do much to relieve, even in the worst and most hopeless cases.

"We must discard empiricism, and treat epilepsy as we do other diseases, on rational principles, tracing causes, effects, and, in a word, every link of the formidable chain, and act on science and common sense."

In the organic form of the disease, many cases arise in which surgery may do much to relieve, and in others to cure it. In inflammation of any of the spinal centers, in addition to constitutional treatment, counter-irritation, with ammoniated liniments, blisters and moxas, have all been found to be useful. Dr. Granville recommends "a strong ammoniated liniment in epilepsy, dependent upon organic disease in the encephalon, or any part of the spinal apparatus." Blisters, frequently repeated, also have a good effect in allaying irritation and reducing inflammation in the spinal centers. Dr. Sequard says: "The best means of treating epilepsy seems to consist in the application of a series of moxas along the spine, and particularly the nape of the neck." This would only, as a matter of course, be correct when the disease is of the centric type. Cauterization of the larynx has been successful in many cases, in which there was laryngismus, and is a means, no doubt, of diminishing or preventing the spasm of the larynx, and, through the pneumogastric nerve, of producing a modification in the nutrition of the medulla oblongata, and thereby, in some cases, curing the disease. Tracheotomy, not for the cure of epilepsy, but for laryngismus and its direful effects, is said, by Marshall Hall, to be the only, or at least the most, effectual remedy. He says:

"1. The efficacy of the remedy is precisely proportionate to the degree of laryngismus and its effects.

"2. The hope from the remedy is precisely proportionate to the earliness of the period at which it is performed.

"3. By the institution of this remedy, the *laryngeal*, and most fearful form of the disease, is *changed* into some milder or *abortive* form; or,

"4. The seizure may cease, or decline and cease altogether. There are many cases of epilepsy in which tracheotomy would be inappropriate. It would be inappropriate in cases involving *organic lesion*, original or induced, and in cases already become inveterate. * * * * I proceed to notice the second, or *paralytic* laryngismus. This is the result of a severe attack of epilepsy—always, I think, the *epilepsia laryngia*. The patient is frequently seen to be in hourly jeopardy of his life from asphyxia. The countenance is livid, the veins of the neck distended, the integuments tumid; the respiration becomes more and more impaired and stertorous; a diffused bronchial rattle establishes itself. The form of the asphyxia is, as I have already stated, two fold, laryngeal and bronchial; at first laryngeal, afterward both laryngeal and bronchial. If tracheotomy be now efficiently performed, the laryngismus is disarmed of its danger. The lividity of the countenance, the distension of the veins, the tumefaction of the integuments, disappear *a vue d'œtl.* The respiration is free; the danger from asphyxia averted! I need scarcely repeat, that if this tracheotomy be not only efficiently but timeously performed, the patient's life is saved. But if the operation be delayed, it will be performed too late; if the bronchia have become clogged and choked with mucus, it will assuredly be performed in vain. The patient, however, rescued from *laryngeal*, will succumb to *bronchial* asphyxia."

Where the disease is eccentric, as from structural lesion, or pressure upon (as by tumors or exostosis) any of the nerves belonging to the spinal system, a cure will generally result from a removal of that part of the nerve in which the lesion exists, or of the abnormal growth referred to.

Dr. Dresbach, of Tiffin, Ohio, (*West. Lancet*, vol. xi, p. 310,) relates the history of two cases of convulsions, resulting from injury of the external cutaneous nerve of the arm, produced, in the first case, by the introduction of a seaton over the cephalic vein, and in the second, by venesection.

In each case, he dissected out the portion of the nerve that was diseased, and a cure was the result in both cases.

Dr. F. H. Hamilton, in the *Buffalo Med. Jour.*, gives the history of a case, which was the result of a fall and injury to the scalp, and which was permanently relieved, if not cured, by making "a circular incision extending to the bone, and then dissecting it up clean from the cranium, leaving the circular flap, thus elevated, attached only at one point, of about an inch in breadth, through which it might derive its support. * * * * My object was to cut off, as completely as possible, the nervous communication between these cicatrices and the general system," etc.

Dr. Holston cured a patient of *epilepsy* by the removal of "a double-handful of dead bone" from the lower third of the femur.—*West. Lancet*, vol. xi, p. 702.

M. Remy *(Med. Gazette and Comptes Reudus)* gives the history of a case which resulted from a wound on the temple; and when it had almost healed, reiterated convulsions followed. These were cured by "cauterizing the cicatrix in its whole extent, with an iron heated to a white heat."

Compression and ligature of arteries have each been resorted to in the treatment of this disease. A case of ligature of the facial and temporal arteries, for the cure of epilepsy—successful—by M. Velpeau, is given in the *Am. Med. Intel.*, from the *Bulletin General de Therapeutique*, 1841.

Dr. McArthur, of Wilmington, Ohio, reports a case, in *West. Lancet*, in which compression of the carotids was successful.

Trephining has also been the means of curing many persons, as the following cases, to which I will merely refer, will clearly demonstrate:

Dr. B. W. Dudley, in *Transylvania Jour.*, vol. i, p. 9, 1823, gives a report of five cases, in which he trephined for epilepsy—three being successful and two unsuccessful; and also of two others, trephined by Mr. Cline of St. Thomas' Hospital—both successful.

Epilepsy cured by an operation with the trephine, by S. A. Cartwright, M. D., of Natchez, 1828.—*Transylvania Journ.*, vol. ii, p. 288.

The use of the trephine in epilepsy, being another successful case, by B. W. Dudley, M. D., Lexington, Ky., 1832.—*West Journ.*, vol. v, p. 646.

Epilepsy from depressed bone cured, by trephining, by David L. Rogers, M. D., New York, 1826.—*N. Y. Med. and Phys. Journ.*, vol. v, p. 79.

Case of epilepsy cured, by trephining, by James Guild, M. D., Alabama, 1829.—*Am. Journ. Med. Sciences*, vol. iv, p. 96.

Epilepsy successfully treated, by trephining, by George Hayward, M. D., Boston, 1838.—*Am. Journ. Med. Sciences*, vol. xxii, p. 517.

Trephining for epilepsy (of twenty years' standing) successful, by J. G. F. Holster, Kentucky, 1849.—*Am. Journ. Med. Sciences*, vol. xvii, p. 541.

Trephining for epilepsy, while under the influence of chloroform, successful, by John G. F. Holston, M. D., of New Concord, Ohio, 1849.—*West. Lancet*, vol. ix, p. 85.

Prof. Blackman has trephined twice, very recently, for epilepsy; one case died, while the other is rapidly recovering from the operation, although, previous to the operation, the patient had a convulsion every Thursday; since the operation, now three weeks, he has escaped convulsions.—*Lancet and Obs.*, vol. ii, p. 309, 1859.

Although more cases of a like kind might be reported, yet I think these are enough to establish the fact, that many cases of the *organic* form of *epilepsy* can be cured by surgical treatment; and, consequently, we should not hesitate to call *its* aid, in all cases, and under any circumstances, in which an operation would be either indicated or specially demanded.

In the treatment of the inorganic form of this disease, we must, as I have already said, be governed by general principles. We must first make a correct diagnosis, and then prescribe such a course of treatment as will meet the indications, that may arise in each particular case. Remove, if possible, all the exciting causes—whether direct or predisposing. Remedy the morbid conditions of the blood. Correct the functional derangements of the digestive and assimilative apparatus, as well as of all the secretory and excretory organs—as the liver, kidneys, skin etc.,—in a word, restore the secretions and support the strength; and, thereby, the system will be restored to its normal condition—to health. As in a great many, if not in a majority, of all the cases of this form of epilepsy, debility and innervation being the pathological condition, tonics will be more frequently indicated than any other class of remedies; while all classes of remedies may be, and no doubt are, occasionally useful in the treatment of it.

When *worms* are the cause, *their* removal by anthelmintics will cure the disease—when scybalæ, or any irritating substances in the alimentary canal are the cause, laxatives, cathartics or enemata will be indicated. When there is undue acidity of the stomach, bicarbo-

nate of potash, according to Dr. Hall, is the remedy of all the remedies; none are more important than a well-regulated, simple, digestible, and nutritious diet, with regular, active exercise in the open air. Many remedies have been proposed for the cure of epilepsy. None of them, either alone or in combination, will cure all cases. There are no *specifics* for the cure of this disease. We will, however, give some of the proposed remedies, with a few cases illustrative of their effects in epilepsy, and by carefully observing the unsuccessful as well as the successful results following their use in the treatment of this disease, it will be seen, I think, that the views which we have expressed with regard to the true *pathological condition* in epilepsy, and the *treatment* based upon *it*, are correct—being both rational and scientific. In the December number of *West. Lancet*, 1857, I gave some account of the *Euphrasia officinalis*, and offered it to the profession as a *new* remedy in the treatment of epilepsy. Its medical properties are—laxative, tonic, nerving and slightly astringent. I have prescribed it in several cases in which it was the only remedy used, and where it entirely cured the disease. In all the cases in which it was tried, even where a cure was not effected, marked relief was given to the patient from its use. The Euphrasia is, also, very useful in restoring to their normal condition the mucus surfaces, when functionally deranged. From the medical properties of the Euphrasia, and from my own experience in its use in the treatment of epilepsy, I have no doubt but that it is one of our most useful remedies in the treatment of that disease, when dependent upon functional derangements, especially of the digestive and assimilative apparatus. It should be further tested. My mode of administration has been to give, to an adult, two fluid ounces of a saturated infusion—cold—in the morning, before eating, and at bed-time, and continue its use until long after every vestige or appearance of the disease has disappeared.

Belladonna.—Dr. Debreyne, of Orne, states that he has used belladonna in about two hundred cases of epilepsy in the last 25 years, and generally with advantage. The more frequent the fits, the more readily was the complaint influenced by the medicine. Mode of administration: four scruples of the watery extract of belladonna are mixed with *two* of powdered gum-arabic, and a sufficient quantity of inert powder, to make 120 pills; one of which is given the first day, two the second, the dose being gradually increased to *six* in the 24 hours, or even more, if injurious effects do not arise.

Fredericq (in *Gaz. des Hop.*) recommends belladonna as a preservation against epileptic fits. He gave his patients, three times a day, a table-spoonful of a watery solution (3 grains to six ounces). He relates two cases in which the medicine seemed to cure.

Atropia.—Dr. Max Maresch, of Vienna, gives a favorable opinion in regard to the efficacy of atropia in epilepsy. Dr. M. prescribed the atropia in eighteen cases; three were completely cured, and thirteen much improved, the attacks being less frequent and violent. The one-fiftieth of a grain was given every morning before breakfast, and continued for a long time. In the above dose, the usual symptoms of belladonna were produced.

Valerian.—Dr. Gairdner, of Edinburgh, reports a case in the *Edinburgh Med. and Surg. Jour.*, Oct. 1828, in which the patient, who had had epilepsy for over 12 years, was cured by taking scruple doses of powdered *Valerian*, night and morning.

Artemisia.—Burdoch (*Casper's Wochenschrift*, Oct. 22, 1836, S. 575) recommends artemisia as a remedy in epilepsy. He cured three out of five of those to whom he administered it. Many others of the German physicians, as Wagner, Riecke, Grafe, etc., speak highly of its remedial powers in the treatment of this disease. The dose is, in the 24 hours, from ʒss. to ʒi.; to small children, a few grains. Dr. Elliotson also reports a case of epilepsy (in the *Lancet*, July 9, 1836), treated successfully by artemisia. From the well known *tonic* properties of the *artemisia vulgaris*, I have no doubt but *it* will, in many cases of epilepsy, connected with a debilitated condition of the digestive organs, or of the system generally, be found to be a valuable medicine in the treatment of it.

Extract of the Cotyledon Umbilicus.—A new remedy in Epilepsy. By Joseph Bullar, M. D. *Prov. Med. & Surg. Journal.* He says: "In all the cases there have been a marked diminution in the violence and frequency of the attacks. I am in hopes that it may prove a true anti-epileptic." It is a *nervo-tonic.*

Indigo.—Von Stahly, Leuhosseck, Grossheim, Ideler, Roth, and others, prescribed indigo, in the treatment of epilepsy, with variable results. It is an *excitant.*

Ferri Ferrocyanuretum.—Kirckhoff, Hidlebrand and Gergees, confirm the efficacy of this remedy in epilepsy. The *Prussian Blue* is *tonic, alterative and febrifuge.*

Iodine.—Franklin, (*Lancet*, 1836,) by very large doses, cured a case of epilepsy. It is an alterative stimulant.

Iodide of Potassium.—Several cases of epilepsy have been cured by the free administration of iodide of potassium, which had been produced by uterine irritation, consequent upon amenorrhea, dysmenorrhea, etc.

Magnetism has been found useful in the treatment of epilepsy, it being a powerful *nervous excitant.*

Nux Vomica.—Hildebrand used this successfully in epilepsy. Nux Vomica is tonic, diuretic and laxative.

Strychnia has also been recommended in epilepsy. Dr. M. Hall says: "It has appeared to me that the hyoscyamus may allay the nervous excitability so frequently observed in epilepsy. As a little spirit obviously does good in the undue cerebral excitement of delirium tremens, I have thought that minute doses of *strychnia* may be useful in the undue spinal excitability in epilepsy. For the organic changes induced by epilepsy, mercury is the remedy."

Zinc.—The chloride, ferrocyanuret valerianate, oxide and sulphate of zinc, have all been successfully used in the treatment of epilepsy. The preparations of zinc are tonic, anti-spasmodic and alterative.

Hydrocyanate of Iron.—Dr. McGugin was the first to call the attention of the profession to this preparation as a remedy in epilepsy. He used it successfully in his practice. Dr. D. Holmes, of Pa., has also met with success while using it in the treatment of this disease. It is alterative and tonic. Many other remedies have been recommended and used in the treatment of epilepsy, and, indeed, there is scarcely any remedy known to the materia medica which has not, at some time or other, been either prescribed or used in the treatment of this disease. Enchantment, laying on of hands, and all manner of charlatanry, has been practiced upon the poor, unfortunate epileptics. I hope, however, that a better day is dawning; that the clouds which have so long darkly hung over the horizon of the *epileptic,* will soon be dispelled, his bodily ailments healed, his mental vision restored, and he be enabled to walk forth as a man, in a perfectly normal condition, in health. After giving a few extracts from cases illustrative of the pathology and treatment of this disease, I will close this rather prolix essay.

Dr. H. E. Greene, of Kentucky, reports the following interesting and instructive case, in *Western Journal,* vol iii, p. 209:

"On the 5th of October, 1827, I was applied to for advice in a case of violent epileptic fits. The subject was a colored man, and a slave, about forty-eight years old, and of steady habits. It was

about three months since the first attack; but he had complained, for twelve or eighteen months previously, of tension, uneasiness and pain about the umbilical region, especially after eating a full meal. He had all this time done the work of a common laborer. The convulsions came on without any previous notice, at each full and change of the moon, and he would have from four to ten at each attack. When I first saw him, he was moderately corpulent, and looked healthy; he said, however, that he was in a very costive habit, and frequently went two or three days without having an evacuation. I bled him, and ordered it to be repeated every ten or twelve days for two months; inserted a large issue in the nape of his neck; directed the daily use of pills, composed of aloes, ipecacuanha and the blue mercurial mass, and prescribed a simple diet. This course was continued for three months, without any sensible variation in the disease. He then took three grains of nitrate of silver daily, for two months, with no better success. He now fell into the hands of a *patent steam doctor*, by whose engine he was nearly destroyed. At length all hope of relief was despaired of, when, in the month of January, 1829, in a severe fit, alone, he fell into the fire, and *burnt severely the whole of the bottom of the left foot.* It did not get well for four months, during the whole of which time he had no fit, but exhibited every indication of returning health and vigor. As soon, however, as it was healed, the fits returned."

The probability is, that if that slave had been put upon an alterive and *tonic* treatment, (instead of an antiphlogistic one, as he was,) combined with judicious counter-irritation, that he would have gotten well. The convulsions were evidently suspended by the *stimulating* effect of the burn on his nervous system. The burn having produced the same effect in his case that Marshall Hall gained by cauterizing the larnyx in his cases.

Dr. Staughton reports a case, in *Western Journal*, vol. iv, p. 340: Ecclesiasticus fuit, et regulis ecclesiæ suæ a matrimonio prohibitus. Per complurimos annos assuefactus fuit libidinis suæ de masturbatione solatium præbere. He became weak and debilitated, and had frequent violent convulsions; his pulse was weak, small and quick. The Dr. says: "Another convulsion prostrated him; he was carried into an adjoining house, and some one bled him. The *venesection* appeared to cause a repetition of the convulsions. * * * His vital energies were evidently giving way, and I looked forward to his certain departure. * * * Notwithstanding, I made use of

all the therapeutic means which are universally employed in similar cases, and I had the benefit of the advice of Drs. Mechlin and Borrows, of Washington. I am free to confess my belief that our remedies were of very little service," etc. This man finally fell a victim to a habit which was the bane of his life. If, in this case, a course of *supporting* and *tonic* treatment had been instituted instead of the one that was pursued, his body might have regained its vigor, and his mind its strength and buoyancy, and he would have been enabled to have exercised his moral faculties so powerfully as to have resisted the fascination of, and the direful consequences resulting from, his indulgence in his pernicious habit.

In *Western Journal*, vol. ii, p. 454, is *An account of the producduction of Epilepsy from protracted bathing in a pond.* By H. G. Doyle, M. D., of Mayslick, Ky.

The immediate effect of the long-continued bathing in this case, was great debility, doubtless from congestion of the nervous centers, followed by epileptic convulsions. The treatment was of the active, antiphlogistic kind, by bleeding, antimonials, cathartics, etc., which resulted in no benefit to the unfortunate sufferer, who grew worse and worse, until hope for him was lost. This is another case in which the treatment was in direct opposition to that indicated by the pathological condition of the patient.

Treatment of Epilepsy. By Horace Green, M. D., New York. *West. Lancet*, vol. xiv, p. 238. 1853. This patient was 27 years of age, and had epilepsy since he was ten years old. He had at one time taken nitrate of silver for a period of two years, at the rate of a grain and a half each day; the attacks of epilepsy were less and less frequent, until, at the end of two years, they ceased altogether. But long before the disease had entirely disappeared, the nitrate had made its appearance on the skin, and by the time the patient was restored, the skin had received the dark blue tinge of the salt—a tinge that has remained to the present time, a period of fifteen years—unchanged, except that it of late years has assumed a still darker hue. He had a return of the disease in two years; and, after many years, he called on Dr. Green for treatment, when he advised and practiced cauterization of the larynx; the only effect of which was the suspension of the convulsions for a period of twenty days—that being the longest interval after the cauterization—while the attacks before that time were very frequent, there generally being several every day. This case serves to show us the *good* and *bad* effects which result from the long-con-

tinued internal use of the nitrate of silver, and the slight effects that are to be expected from cauterization of the larynx alone.

Dr. E. Watson had a patient, a young lady, who for several years had epilepsy. He cauterized the larynx daily, for a fortnight, and afterward at longer intervals. The treatment gave marked relief, both in the frequency and intensity of the paroxysms, but did not cure. From Dr. E. Watson, p. 42.

Dr. McMeens, of Sandusky, O., reports (*West. Lancet*, vol. xvi, p. 387) several cases of *epilepsia miasmatica*, which were successfully treated by him with calomel, carbonate of iron, followed the next day by the continued use of quinine and strychnine, combined in solution. I have myself had several similar cases in my practice; treated them upon the same general plan, with like results.

Dr. B. Sequard says (*Researches*, pp. 81–82): "The nutrition of the nervous centers may be modified, and thereby epilepsy be cured, principally by the medicines which act on the blood vessels; such as strychnia, but particularly by those which determine contractions in these vessels, such as atropia, ergot of rye, etc. * * * As a means of treatment too much neglected, we will point out the possibility of the transformation of epilepsy into intermittent fever, which has been proved by the important facts observed by Dr. Selade, by Dumas, etc. The frequent passage of an intermittent fever into epilepsy, and the facts which show that the nerves of the blood-vessels are excited in the nervous centers in fever and ague, show, also, that there are great analogies between epilepsy and intermittent fever. So it is as regards the efficacy of ligatures, in both diseases. * * * * * From these facts, and many others, we think it would be of the utmost importance to try to have fever and ague generated in epileptics, as a means of cure of epilepsy.

We will merely add, that hygienic means are as important as the treatment; and that sleeplessness ought to be combated as much as the disease itself.

As regards the treatment of the fits, we cannot insist too much upon the prevention or diminution of asphyxia; as it seems certain, that the circulation of black blood in the nervous centers prepares for the production of future fits. For this object, the best means are—1st. Dashing very cold water on the face; 2d. The inhalation of chloroform.

I had two cases of epilepsy during the last winter; the patients were boys—one in his third, the other in his sixth year. The symp-

toms were nearly alike in both cases; the convulsions came on every four weeks; and, what was a little remarkable, for two or three nights preceding the convulsions, there was considerable arterial excitement, fever subsultus, etc. I gave them mercurial cathartics, followed by quinine and strychnia, in solution, during the interval; and when the fever came on, prescribed tinct. verat. viride, to be repeated every four hours, in such doses as to entirely control the circulation, for three or four days, or until the usual time for the return of the convulsions was past: repeated the tonics during the next interval; gave the veratrum as before, and so on, until they were entirely well. One of the boys had one convulsion, and the other none, after the treatment was commenced.

The conclusions to which I have arrived are:

1. That *epilepsy* is a disease of the *spinal system*, either primarily, or by extension.

2. That, of the forms, the inorganic, and, of the types, in either form, the eccentric, is the most susceptible of cure.

3. That, in the organic form, *structural lesions*, and, in the inorganic, *innervation*, is the *true pathological condition*.

4. That there are no specifics for its cure.

5. That, in the organic form, the principal curative means are surgical; and, in the inorganic, tonics, stimulants, alteratives, cathartics, diuretics, sedatives, etc., etc., are all, occasionally, useful.

6. That it can be treated as rationally, as scientifically, and as successfully as any other of the more grave forms of disease; and,

7. That the investigations, on this interesting and difficult subject, should be continued; as the mysteries are not all explained, or the phenomena all understood, that are connected with this fearful disease.

[C.]

EMPYEMA, FOLLOWING SCARLATINA, WITH AN OPERATION.

BY JAMES BRONSON, M. D.

Monday, Feb. 7th, 1859.—Was called to see William Shorts, aged fifteen. Found him with a high fever, sore throat, and scarlet rash. Inquired if there was any scarlatina in neighborhood; not any that they knew of. Told them it was, evidently, a case of scarlet fever of the anginose form. They had given him a cathartic, supposing it to be a cold. Left spirits mindereri and dover's powder, to be given if he was very restless.

8th.—Found him doing well, with more rash than I ever recollect of having seen before. Medicine the same, with the addition of a gargle of salt and cayenne-pepper in vinegar.

9th, 10th and 11th.—Continued to do well, with no particular alteration in treatment.

12th.—Fever pretty much done with, and rash leaving; omitted treatment, except dover's powder, to be given if he became restless. On the evening of the 12th, he wanted his bed changed, and woolen drawers taken off, which they did, placing him upon a cold feather bed. About midnight he had a chill, followed with fever and pleuritic pain in the right side, expectorating some blood with the cough.

I was not a little disappointed to find him, on the morning of the 13th, with the above symptoms; for it was supposed on the day before, that this would be my last visit. Gave a solution of tartar emetic and paregoric, with mustard paste to the side.

14th.—No better; bowels having moved two or three times, probably from medicine; expectoration assuming quite a yellowish hue. Gave a powder, of calomel, tartar and morphine.

15th.—Less pain and fever; crepitant rale, with pretty free expectoration of mucus, assuming the color of bile. Applied a blister

to the side, and gave a small powder, of tartar, camphor and morphine.

16th.—Apparently doing well; can take a tolerably full inspiration without much pain; expectoration the same. Gave castor oil for a cathartic, and continued the same powder.

17th.—Still doing well; expectoration becoming a better color. Medicine the same.

18th.—Very little fever; complaining much less; billious tinge having pretty much left the expectoration; the coat on the tongue, which has been moderate, of a brownish color, and dry, is beginning to clean off. Medicine the same.

19th.—Can take a full inspiration without any pain, coughing but little; bowels not having moved, gave a cathartic of rhubarb, with a small quantity of podophylin. Otherwise, medicine the same.

20th.—From this time to the 28th, I was passing the house daily, to see another patient, and each day called to see him, but gave little or no medicine; no cough, and appetite good.

March 5th.—Was called again to see the boy. Notwithstanding his appetite was good, and bowels regular, he did not gain strength; with some soreness in the side, and occasionally a slight cough. Examined the lungs thoroughly, but could not discover much disease; he complained some when I pressed on the side. Thinking it to be still the relic of the pleuritic trouble, applied another blister, and gave iodide of potassium, in 2 gr. doses, four times a day.

7th.—Found him sitting up and complaining of nothing, only that he could not get enough to eat. Ordered him to continue iodide of potassium for two or three days, with a solution of wild cherry bark, and discontinued my visits.

March 17th.—Called early in the morning to see the same boy. During the night, he had another chill, with pain in the side, and fever; pulse, 100. On examining the side, found it, evidently, enlarged with some kind of fluid. Gave dover's powder and sanguinaria every four hours.

18th.—Expected to see him early in the morning, but did not until 4 P. M. Found him much worse; pulse 120, and feeble; some considerable difficulty in breathing; countenance becoming cadaverous, with a clammy sweat. Gave a powder, of quinine, camphor and morphine, every three hours.

19th, 11 A. M.—Found him still weaker; side more distended. In consultation with Dr. J. F. Porter, concluded to evacuate fluid,

which was supposed to be pus. The incision was made between the seventh and eighth ribs, about midway from the sternum to the spine. Thin, whitish pus, with some serum, escaped, in the withdrawal of lancet. After letting off about one quart, he became faint. A pledget was placed over the orifice, with directions not to be removed until evening, when it was again to be removed, and allowed to run until faintness, which took place after about the same quantity had escaped; it was then closed again, with the pledget and roller, until my return in the morning. The powder the same, with brandy.

20th, 9 A. M.—Pulse, 112; breathing not so hurried; rested tolerably well. On applying my ear to his chest, I could not detect air to enter the right lung more than one-third of the way down; most certainly the result of compression from pus. Opened the orifice, and left it open, which continued to discharge the greater part of the next twenty-four hours, but more moderate; not more than a quart during the time, making three quarts in less than two days. Medicine the same, with the addition of 3 gr. citrate of iron to quinine.

21st.—No discharge of pus; rested well; appetite good; bowels not having moved for four days, gave an enema; moved freely. Medicine the same, with iodide of potassium, 2 gr. every six hours.

22d.—Appears to be doing well; pulse, 110; says he is going to get well. Medicine the same.

23d.—Rested well last night; sweat but little; pulse, 108; respiration twenty-eight per minute; air enters about three-fourth of the lung; some of the sibilant rale. Medicine the same; bowels moved with an enema.

24th.—Doing well. Medicine the same.

25th.—Pulse shows, very decidedly, an impression from the tonic treatment. Omitted iron, and gave 1 gr. of quinine, with an infusion of cherry bark, every six hours.

26th.—Dr. Porter visited with me this morning; thinks there has been considerable improvement. Continued quinine and iodide of potassium, substituting cod liver oil for cherry bark.

27th.—Did not rest as well last night, coughing more; and, evidently, pus is being secreted; pulse, 125; ordered an enema in the afternoon. Medicine the same.

28th.—Feels quite chirp this morning; in the fore part of the evening, the pus commenced running from orifice, which had only partially closed, and continues to run.

29th.—Rested well; pus discharging; pulse, 120; respiration, 20 Medicine the same.

In looking over my notes, I find but little variation, in treatment or symptoms, until about the first of May, when the pus became thicker, and less in quantity; his treatment since consisting of some preparations of iron, quinine, and port wine. Appetite remaining good all the time, and bowels regular.

May 30th.—William has so far recovered as to be able to walk from one room to another; has no hectic symptoms of any magnitude; quantity of pus discharged now is not more in twenty-four hours than one-fourth of what it was three weeks ago; has increased in weight considerably; air enters the whole of the lung; has neither cough nor pain.

June 4th.—Visited him again this day, and find him doing well; has become very tired of the quinine; omitted for the present; giving muriatic tinct. of iron, 20 drops three times a day, with port wine.

A few reflections in connection with the case:

1. Would any treatment, during the time that I was not visiting him, have prevented the empyema?

2. Would nitrate of silver, or any other medicine, injected into the chest, have proved beneficial?

[D.]

REPORT OF COMMITTEE ON INSANITY.

(Manuscript not received.)

[E.]

CATARACT.

BY R. THOMPSON, M. D.

AMONG the various rules to be observed in the selection of eyes fit for operation in cataract, authors caution us against meddling with such as are otherwise diseased, inflamed, or subject to inflammation.

As is true of many other rules laid down by authority, this rule is certainly not always to be observed, as much experience has assured me.

In traumatic inflammation of the eyes, I would not willingly operate to disturb a lens,* unless, by impinging upon the retina or iris, it was likely to jeopardize the safety of the organ, in which case its displacement or removal would afford the very best means of relief. Indeed, I am fully persuaded that many forms of preëxisting disease, instead of contra-indicating operations for cataract, rather enhance the chances of success. Nor is this all. While the preëxisting disease does, to some extent, counteract the development of a high degree of inflammation, after an operation for cataract, so in like degree will be modified the preëxisting disease, upon the well-known principle of counter-irritation or antagonism. And why should it be otherwise? Do not all curative means thus act, in whole, or, as in the operative processes, in part, by the removal of morbid structures, and in part by the irritation and after-treatment consequent upon operations? To make myself more clearly understood, I will ask, who has seen any one of the ordinary chronic diseases of the eye made worse by an operation for cataract? Is it to be assumed that granular lids will be tortured into a higher state of irritation by an operation for the cure of cataract, when we use means much more severe in the treatment of this troublesome form of disease,

*In cases requiring more than one operation, I am very careful to defer such secondary procedures until every vestige of irritation from preceding operations shall have subsided.

and those means addressed to the very diseased surface in question? Is it not more reasonable to infer that the slight amount of irritation induced by the breaking up or displacement of a diseased lens, with its subsequent treatment, would, to say the least, act favorably upon granular lids?

But were I to admit that no good could result to the lids from the operation in question, pray tell me what harm can possibly follow it? It will not be contended that the irritations in both cases are identical; and if not identical, they are antagonistic, and hence subversive of each other—reciprocally curative.

For the more forcible illustration of my views upon this important point, I beg to be indulged in the recital of a few cases, as I am inclined to believe that those who have advanced the current belief, have not practiced sufficiently upon the principles herein inculcated to give their opinions the force of good authority.

Case First.—In the first year of my practice I operated upon a young lady of Muskingum county (Miss Elizabeth Crawford), aged 21 years, for congenital cataract. Miss C.'s eyes were then, as they had long been, suffering from chronic conjunctivitus, with a very liberal puro-muculent discharge, producing altogether what is ordinarily designated as blear-eyed. Through a strange departure from the ordinary form, the lenses had assumed a conical shape, with their apices projecting through the pupils and resting in contact with the internal surface of the cornea, and was capable of being divided into transverse lamellæ of a corneous texture.

Being difficult of division and slow of solution, a second operation was indispensable in each eye, which, of course, more than doubled the chances for traumatic inflammation. In this case, however, contrary to what many would have anticipated, although the clearing of the pupils was slow, I had no trouble in combating untoward symptoms, while the ultimate success was complete.

Case Second.—About five years ago, James Harris, sen., of this city, aged 73 years, became blind from cataract, having been subject for a number of years to frequent attacks of active conjunctivitus, with ulceration of the cornea, which in one eye resulted in permanent opacity. At the time of the operation upon his cataractous eye, a considerable degree of redness obscured the visible conjunctiva of both eyes. The operation was made through the cornea by penetration, and breaking up of the lens. No serious or troublesome inflam-

mation followed; absorption progressed rapidly, issuing in a most perfect cure within three weeks from the date of operation.

Case Third.—Mrs. Sinke, aged 53 years, residing on the east side of South High street, with cataract in both eyes and fistula lachrymalis in her left, was operated upon, on the fistulous side, by my son, on the last Thursday of April of this year, and at the same sitting, by myself, upon the right eye; and as experience had led me to anticipate, the fistulous eye suffered but little irritation, no inflammation. The result was perfect—vision being restored from the moment of the operation.

The right eye took on a mild form of inflammation, which retarded absorption, and required treatment for the term of three weeks before clear vision was obtained.

Case Fourth.—Mrs. Coles, aged 73 years, of North High street; right eye destroyed many years ago; lids in a constant state of mucous irritation; cataract in left eye; patient suffered frequent severe attacks of pain in the head. Operated for cataract on left eye, October 20th, '55; subsequent irritation very inconsiderable; sight good; on fourth week after operation, made a calico dress for herself; vision continued perfect up to the time of her death, in the month of July, '58.

Case Fifth.—Mrs. Chambers, residing four miles west of this city, blind of cataract; general health very feeble; bed-ridden, with frequent attacks of pain in the eyes of rheumatic character, with an occasional attack of erysipelas of the face, extending into the hairy scalp; age 73 years. Operated on both eyes at the same sitting; no untoward after-symptoms; absorption went on slowly; at the end of two months vision good in left eye; right eye may yet require another operation.

The foregoing cases, taken from among many others, I trust, will both illustrate and sustain the views which I have long entertained upon this most delicate branch of surgery.

[F.]

SOMETHING ABOUT EYES,

AND

The Mode of Forming Artificial Cataract in the Eyes of Dead Animals.

BY R. THOMPSON, M. D.

As SOME gentlemen present may remember, I read a brief and very hastily drawn up paper, upon the subject of cataract, in which I presented several views which, by many, were not deemed orthodox. One point called in question, was my habit of operating upon both eyes at the same sitting. The paper alluded to will be found in the Transactions of the last session of the O. S. Med. Convention.

At present it is not my purpose to present the same arguments then advanced, nor to offer any new arguments to sustain said views, but simply to assure this Association, that all my experience since the date of the paper alluded to, has gone to confirm most strongly the position therein asserted and discussed.

Another position therein assumed was, that too great seclusion from light was not to be enjoined after an operation for cataract.

In illustration of this view, I will submit the following cases:

Case First.—In the month of June, 1835, I operated on one eye, in the case of David Pugh, aged 82 years, the other eye laboring under strabismus, and not fit for an operation. His room was well selected, and cool, in one of our hotels. But as is usual with old men, he became restless on the second day, ordered out his horse, and traveled home, a distance of ten miles, in a most intensely bright and hot sunshine; and on the day following, under like circumstances, returned to the city—and thus deported himself during the entire progress of the cure. I need not say that I was greatly delighted to find the result so perfect; that he was then, as he has ever since been (at

now the age of 100 years) able to, read his large Bible with the assistance of proper glasses.

Case Second.—Mr. Smaltz, aged 63 years, from Fairfield county, was operated upon in the winter of 1835, while the ground was covered with a deep snow, and in a season of bright sunshine. On the sixth day after the operation, he, as stated of Mr. Pugh, became homesick and determined to see his family, and actually did travel eighteen miles to his residence, in an open sleigh driven by his son; from which time, until after a lapse of several weeks, when he came to the city to procure cataract glasses, did I see him. From this onward, during the remainder of his life, he was able read and work at blacksmithing.

Case Third.—In the month of July, 1857, I operated upon both eyes of Mr. Wilcox, of Morrow county, aged 73 years. Having occasion to remain in his family over night, I discovered in him a disposition to be impatient of restraint, which induced me to enjoin upon his wife strict watchfulness over his movements. After a lapse of three months I was gratified to learn that, although he had acted imprudently in many respects, and had driven his horse and buggy into Marion, a distance of eight miles, and elsewhere through the country within two weeks after the operation, his sight was permanently restored.

Case Fourth.—Congenital Cataract. In the year 1841, I operated upon a child from Urbana, on both eyes; which, on the third day afterward, showing no symptoms worthy of note, I permitted to be carried home in a buggy, without the slightest injury to the eyes, which, within a few weeks, were brought to a perfect state of vision; nor has the child (being now a brisk young lady) ever experienced the slightest embarrassement from want of vision.

If, then, such cases as are here presented resulted in complete cures, is not the inference a reasonable one, taken in connection with the reasons adduced in my former paper, that probably too much care may overdo the necessities of nature, and thwart her benign purposes, as regards the process of absorption and ready adaptation of parts to their new relations?

Surgery, ever anxious, is ever willing to do, and I submit, whether frequently too much is not done; but more especially is not this true in reference to the treatment of diseases of the eye?

But, in this connection, it may not be amiss to express the opinion, that in certain circumstances greater circumspection and care may

be demanded. Where great disturbance of various tissues, involved in operations for catraact, has been wrought, it would certainly be proper to enjoin the observance of a corresponding rigidity of the after-treatment. This fact, in itself, should admonish us of the vast importance of selecting that operative process which will work the least disturbance in the eye; and for which reason, I deem it highly improper not to puncture the globe of the eye behind the cornea, unless an imperative necessity controls the choice, for the reason that more sensitive parts are disturbed by the instrument, involving almost a positive necessity for a high state of inflammation.

Hence, it is seen, that I prefer the corneal puncture in every case where no insurmountable obstacle interposes.

Although days, a few weeks, or even a few months' time may be lost to the patient by waiting upon nature's slow, but usually certain method of procedure, the surgeon should not be rash in his endeavors to effect a cure hastily, as time to a patient without sight, and this time possibly to measure the remainder of his days, is a matter of but small moment in any other sense than as it may be appropriated to the great end in view.

In addition to the foregoing, I beg the indulgence of this Society while I briefly present a case, which, to myself, possessed peculiar interest. In the summer of 1852, I operated upon a patient at the advanced age of 92 years. His vision had been good up to the age of fifty years, when he found it necessary to resort to the use of spectacles, which he was obliged to use during the subsequent 20 years. At the age of 70 years, he discovered that his sight had returned in so perfect a degree as to enable him to read the smallest print without artificial aid. This happy state of things continued up to the age of 90 years. Finding his sight failing from lenticular opacity, it became necessary to operate for cataract. In his 92d year, I operated on both eyes at the same sitting; but from the operation of causes incident to so advanced an age, vision was restored in but one eye. This, however, added greatly to the remaining comforts of his declining years—having lived four years after the operation. He died in 1856, aged 96 years. This patient was my father.

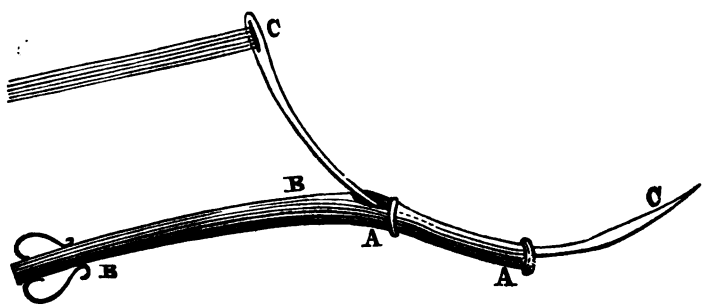
To make artificial cataract in dead animal eyes.—Take a fresh eye and envelop it in a bunch of rags, or in a hollow sponge, saturated with cold water, leaving the posterior segment exposed. Through this open space thrust a piece of pointed wire, or a large pin, until

the point tranfixes the lens; after this is done, apply a lighted candle to the head of the pin or wire, and hold it there until the albumen of the lens gradually becomes opaque. Thus, by keeping the forepart of the eyeball cold, and continuing the heat longer or shorter lengths of time, may be produced every variety or shade of cataract, ranging between the least and the greatest degrees of opacity. A knowledge of this simple device is of vast importance to the surgical student.

[G.]

INGUINAL HERNIA—PERMANENT CURES.

BY R. THOMPSON, M. D.



On July 25th, 1857, Mr. Pettibone, of Wisconsin, placed himself under my care for the permanent cure of inguinal hernia, which happy result was effected within thirty-seven days from the date of the operation herein described.

The accompanying sketch represents the instrument used, which consists of a canula, A A, slightly curved, attached to a shaft or stem, B B, two and a half inches long, and making with it a slight angle; at the attaching end of the canula there is an eye for the reception of the needle, C C, which is four inches long, of equal curve with the canula, through which it is to be thrust in the operation. The needle is lancet-pointed, having an eye sufficiently large to receive a fillet or skein of thread, which is to follow the track of the needle.

Operation.—The patient was placed upon his back with his knees slightly drawn up, when the blunt end of the canula was pressed firmly into the abdominal ring, in the direction of the canal, and thus made to carry the integuments as far as possible into said canal; and while firmly held in this position with one hand, the needle was forced forward with the other, until the point emerged from the skin

an inch and a quarter from its place of entrance, and then drawn through, carrying with it a skein of thread which was left in the wound made by the needle.

The needle being detached, a water dressing with pledget and pelvic bandage completed the operation.

After-Treatment.—The patient was confined to his cot during the first ten days, during which time the inguinal region was examined daily, to watch the progress of inflammation, which was not permitted to extend over a space of more than from three to four inches in diameter, and of sufficient depth to involve all the parts intended to be contracted and rendered more resisting by its action.

The suppuration in the track of the seton was permitted to become liberal (with the intention of more pefectly securing the ends in view) during the first week; after this it was diminished gradually by withdrawing strands of the fillet.

After the tenth day the patient was permitted to take a little exercise, the loins and pelvic region being sustained by a bandage, making a more definite pressure over the inguinal region by pledgets of folded muslin, moistened occasionally with astringent solutions.

About the twentieth day from the date of operation, very little restraint was imposed other than to enjoin great caution against all rash exertions, much standing, long walks, etc.

At the end of the month a light and gentle acting truss was applied instead of the pelvic girdle. Astringent and stimulating embrocations ordered.

From the thirtieth day onward, while under my immediate care, efforts, gentle at first, were made to test the work thus far done, and, to our mutual gratification, found to meet our highest expectations.

Enjoining reasonable care upon my patient, he left for his home (under an injunction to write me immediately in case of a reäppearance of the rupture), on Sept. 10th, '57, since which I have heard nothing from him.

Case Second.—In the month of November, 1858, Mr. Titus Helsel, of Franklin county, Ohio, placed himself under treatment for the radical cure of inguinal hernia. As the treatment, progress, and cure of this case varied in nothing material from the course pursued in Mr. Pettibone's, it is deemed unnecessary to repeat details. Suffice it to say, that now, after a lapse of more than six months, rupture seems to be perfectly free from any tendency to reäppear.

Remarks.—The operation for the radical cure of hernia, which is

by no means a difficult one to make, is not necessarily followed by either violent or dangerous symptoms. Nor is there any form of traumatic irritation or inflammation more amenable to controlling treatment than that which is purposely induced by this operation. All that is wanting is strict attention to, and modification of, the inflammation, by the most ordinary means, until the object is accomplished.

NOTE.—During convalescence a very light acting truss should be worn, to sustain the inguinal region, until the tissues have acquired sufficient strength to prevent a return of the hernia.

[H.]

ON DETECTING AND DIAGNOSING THE SIMPLER FORMS OF VALVULAR DISEASES OF THE HEART.

BY JARED P. KIRTLAND, M. D.,

PROF. OF THE PRINCIPLES AND PRACTICE OF MEDICINE, CLEVELAND (OHIO) MEDICAL COLLEGE.

STOKES informs us, that "the diagnosis of the combination of diseases, even in so small an organ as the heart, is still to be worked out."

His remark, applied to a complication of diseases of that organ, may, with some modification, be correct; yet the converse of it is equally true, in its application to the simpler forms of valvular derangements of the same organ. They are as easily detected and distinguished, one from another, as are the several abnormal conditions of the lungs.

When once mastered, they form the starting point for investigating and analyzing the more intricate and complicated disorders. A perfect method, infallible under all circumstances for effecting such a purpose, is perhaps still to be worked out; yet an experienced practitioner, accustomed to overcoming the difficulties attendant on determining the simpler, will ultimately attain a tact at diagnosing the more complicated forms, with a certainty not warranted by this skeptical view of Dr. Stokes His work on the heart, abounding with practical and valuable information to the experienced, invariably discourages the efforts at advancement of new beginners in our profession. A little more confidence diffused in his pages would have exerted a beneficial influence in imparting encouragement to the student. Every science has its elements. They must be first understood by the investigator before he can become a proficient. As a teacher, I have, from long experience, found the following epitome

of the signs and evidences of valvular disease to afford medical students as much aid as does the gamut to the learner of music.

By taking it for a guide, and bringing to our aid an accurate knowledge of the anatomy and physiology of the organs of circulation, every valvular sound may not only be located to the particular orifice of the heart where it originates, but the nature of the impairment can be inferred with a great degree of certainty.

The correctness of several parts of this epitome was satisfactorily established by testing, on the person of E. A. Groux, during his recent visit to the city of Cleveland. The malformation of his chest afforded peculiar facilities for the purpose.

VALVULAR DISEASES are attended with *eight* murmurs—four are *direct*, arising from resistance to the onward progress of the blood; four are *regurgitant*, arising from the falling back or regurgitation of a portion of the blood through a defective valve.

1st. Aortic orifice may give origin to two sounds:

a *Direct.* It occurs with the first sound af the heart; is more distinct at the semilunar valve, and over the course of the aorta, than over the apex of the heart and the ventricles; is often attended with a purring murmur. Where strong and harsh, it may be heard along the whole course of the aorta as far as the bifurcation. *Pulse*, unless great contraction exists at the aortic orifice, is not much affected. Its *pitch* or *key* sounds in unison with whispered R.

b *Regurgitant.* Occurs with the second sound of the heart; is most evident over the aortic valves. *Pitch* lower and louder than preceding, and is in unison with whispered AWE. *Pulse* regurgitant and preëminently jerking, seldom accompanied with a purring murmur. The sound is prolonged through both the beat and the interruption of the pulse, and often becomes musical.

2d. Pulmonary orifice may give origin to two sounds:

a *Direct.* Same as the aortic; it is heard more on the right side of the sternum, and is more superficial. *Pitch* or *key* is a little higher, like whispered S. *Pulse* not affected as it is on the left side; the purring murmur may occasionally be heard. Diseases of this orifice are comparatively rare, and should not be suspected unless well marked and distinct signs exist.

b *Regurgitant.* Signs same as aortic, except in their locality. *Key* or *pitch* a little higher; of rare occurrence.

3d. Mitral orifice may give two sounds:

a *Direct.* Accompanies the second sound of the heart; *pitch* or

key low, like whispered WHO; never becomes purring and harsh. *Pulse* feeble, irregular, unequal and intermitting; of rare occurrence.

b *Regurgitant.* Accompanies the first sound of the heart; *pitch* or *key* like whispered WHO; may become rough and rasping; is most evident at the apex of the heart, or a little above, at the sternal side of the nipple. While at this point, the aortic sounds are always feeble and indistinct. This murmur often drowns the first sound of the heart, and is more frequently *purring* than any other of the valvular sounds. If the regurgitation be considerable, the pulse will be the same as in contraction of the mitral orifice.

4th. Tricuspid orifice may give two sounds:

a *Direct.* Sounds the same as the mitral, *mutatis mutandis;* never sufficiently strong to afford much murmur. *Pulse* not affected.

b *Regurgitant.* Sounds same as mitral, changing locality; extremely rare.

Justice to the memory of my departed friend and colleague, Prof. Worcester, requires that I should acknowledge myself indebted to him for the first suggestion of the above epitome of signs and evidences of valvular disorders.

[I.]

REPORT OF THE COMMITTEE ON SURGERY.

Ovariotomy in Ohio: Being the Report of a Special Committee of the Ohio State Medical Society. By J. W. HAMILTON, *Special Committee on Surgery, Prof. of Surgery in Starling Medical College.*

TO THE SOCIETY:—Within the last eight months, the undersigned, sole member of your Special Committee on Surgery, has had occasion to investigate twelve cases of ovarian disease. Four of these were subjected to Gastrotomy, and in one other the question of operation is now pending. An incident of this succession of cases, has been the rigid scrutiny of the facts and statistics of the subject. These statistics were resorted to in the outset, with the ordinary degree of confidence in their correctness. The abundance of the fallacies discovered in them, however, was such as to fix attention upon Ovariotomy in our State as the exclusive subject of this report.

On investigating the former records of this Society, what aimed to be a full statistical history of the operation up to June, 1851, by the zealous and intrepid Ovariotomist, the late lamented Dr. P. J. Buckner, was found. This table gave eleven cases, six successful and five unsuccessful. But little progress was made in the investigation of the subject till three cases were discovered, belonging to Ohio, and occurring previous to the date of that report, all of which were fatal, and not included in it. One was that of Dr. Ephraim McDowell, on Mrs. Delano, of Chillicothe, in 1825; another was that of Dr. P. M. Crume, in 1848; and the third was that of Dr. Robert Thompson, occurring in 1847. These, added to those collected by Dr. Buckner, give fourteen cases, as the aggregate at the date of his report, *eight* of which, instead of *five*, were fatal; making a change sufficient to give an essentially new aspect to the practical features of the subject, so far as this report is concerned.

Again: The periodical literature of our own and other States, con-

tains at this date (June, 1859), as contributed by Ohio, twenty-seven cases, *eighteen* successful, and *nine* unsuccessful. This is believed to represent all of the successful cases that have occurred, except a single one, that of Prof. Ackley, in 1856; while a large number that were unsuccessful are known not to have been reported. The whole does not contain an isolated, unsuccessful case by a given operator. It does contain successful ones which transpired in the hands of several different operators, who subsequently had unsuccessful ones, which the record does not show.

Similar though less glaring defects were observed in the history of Ovariotomy in Kentucky, as given by Prof. Gross, in his history of Kentucky Surgery.

These things are mentioned, not as illustrating peculiar short-comings on the part of our own surgeons, or those of Kentucky, nor for the purpose of maintaining that there is any thing unique in regard to this particular surgical topic; but as showing the sources of vitiation to our statistical information on this and kindred subjects, and as pointing the Society to the appropriate work of correcting these defects, as far as possible, within the sphere of its own operations.

The result of the contemplation of the subject, accordingly, was a distrust, not only of our own contribution to it, but also of our general statistical information, of which it constitutes a part, and, probably, about a fair specimen.

What should be done in such circumstances? I had had a limited experience, which during the greater part of the time occupied in the preparation of this report, was supposed to have been sufficiently bitter and unsatisfactory. The circumstances which gave spaciousness and deceptiveness to the contribution made to the general subject in Ohio, are ubiquitously operative, being founded in human nature; and hence the study of it affords no satisfactory indication as to the line of duty. Under such circumstances, what course should be pursued? Should that which has yielded such bitter experience be quietly abandoned? Or, in subserviency to the interests of humanity, should it be heralded — held up as a beacon to shield others from similar disaster?

To pursue the former course is undoubtedly consonant with the dictates of human nature; to pursue the latter, is the imperative duty of the honest surgeon.

But another error was to be guarded against; that of being led

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astray, and the interests of humanity and science sacrificed, on the ground of an insufficient experience.

These were the circumstances and considerations, and these the feelings, in which the collection of the materials for this report originated. It was made with the determination, and for the simple purpose, of ascertaining the *whole truth*, so far as Ohio and Ohio Surgeons are concerned, without bias for or against Ovariotomy, or any other course of surgical procedure. The result of this labor, sufficiently arduous, and in some particulars far from being agreeable, is now presented to the Society. And though the barrenness of the details in many of the cases cannot but be occasion for the expression of deep regret, and though there may be deception as to the completeness of the following list, yet I cannot refrain from the expression of a great degree of gratification, in being able to present the Society, the profession, and especially those surgeons who expect to assume the terrific responsibilities of Ovariotomy, a record containing all, or about all, whether fatal or successful, that has transpired in the hands of our surgeons, or within the limits of our State, which has been so prolific in this description of surgical experience.

The report embraces Ovariotomy in Ohio, whether performed by surgeons of our own or adjoining States. It also embraces cases operated on by Ohio surgeons in adjoining States. It is aimed to include, in the list, all the cases in which the operation was merely commenced, as well as those in which the extirpation was completed. Every essential fact that could be procured, whether in reference to the previously published or the unpublished cases, is given. Merely speculative views are ignored. They can never settle the question of the admissibility of Ovariotomy as a standard operation. The time is past when a mere characterization of it as "belly ripping," will either be offered or received as final. It is too late to settle the whole question, and satisfy the professional mind, by merely pointing to an assumed intolerance of injury, inherent in the peritoneum. The careful collection and scrutiny of *facts* is demanded — facts representing failures as well as successes. The preponderance of these, whether for or against radical procedures, must settle the whole question.

It is to be supposed the Society will readily appreciate the propriety of undertaking, in its own jurisdiction, to make the collection complete. Whenever the profession can feel assured that we have made thorough work; that failures are as faithfully if not as fully

recorded as successes; and that we have brought all of either that has transpired to the light; we will have done a most important part of the work of settling this great surgical question. Such a work is the great demand—the *sine qua non*—of the subject. Our State is now admirably adapted to it. It has probably been the scene of more Ovariotomy, in proportion to its population, than any other portion of the world. With its net-work of railroads and telegraphs, and its newspaper publications itemizing every matter of interest, and flying through it like the leaves of autumn; with its five regular and two or three irregular medical publications; its four regular and three irregular medical colleges, and the emulation and rivalry growing out of all—these and other circumstances, in their isolated and combined results, make our State peculiarly invitive of such labor, and especially promising of success in its accomplishment.

The sources of the material are sufficiently indicated in the course of the report.

As the most simple and convenient method, the cases are placed in connection with the names of the operators, arranged alphabetically.

Case 1.—ACKLEY, Prof. H. A.,* recently deceased, formerly Professor of Surgery in Cleveland Medical College. This operation was performed two or three years since. A free incision was made through the abdominal parieties, and the tumor thus exposed. At this juncture, the lady being seized with a fit of coughing, the tumor was thrust from the abdomen, so as merely to hang by a pedicle of the size of a finger. This being ligated, the mass was separated by dividing it. The wound was dressed for adhesion, which occurred without an unpleasant incident.

Case 2.—ACKLEY.* In 1855, Prof. A. operated in a case of "ovarian dropsy," which, at the time, gave fine promise of success. The patient was considerably shocked by the operation, but on the next day had rallied. A promising state of things continued for about three days, when she sank suddenly, and expired, on account of the supervention of abdominal hemorrhage. It was the opinion of Prof. Ackley, and also of Prof. Delamater, that this fatal hemorrhage was the result of undue traction, and consequent premature separation of the pedicle, incident to an effort to secure the stump

* Letters from Prof. Delamater.

external to the peritoneal cavity, by the use of the ligature on the pedicle.*

Case 3.—Anonymous.† Given without the name of the operator by agreement. He is one of the most industrious and worthy surgeons of the State. Mrs. ——— came into the hands of the operator, suffering from dropsical distension of the abdomen. After paracentesis, a tumor, to the right of, and below the umbilicus, was observed. Several able physicians, in consultation, diagnosed ovarian disease.

When the abdomen again became distended, the operation for extirpation was commenced, with a free incision in the linea alba. A large quantity of fluid escaped, revealing the presence of scirrhus of the omentum. As there were extensive adhesions to the intestines, the operation was abandoned. The patient died within about a week.

Case 4.—Blackman, George C.,‡ Prof. of Surgery in the Ohio Medical College. This operation was performed, it is inferred, in February, 1856. The report is in Prof. B.'s own terms: "This woman had been tapped several times, and for the last time, five days before the operation; during which time the tumor had regained its usual dimensions. On its removal, it weighed about twenty-two pounds. The adhesions were few, and easily broken up. The pedicle was left in the cavity of the peritoneum, attached to the ligatures without." He never saw a wound, even of the extremities, heal more kindly; no bad symptoms followed, not even nausea, from which she always suffered after tapping. More than three years after the operation, the patient was in fine health.§

Case 5.—Blackman.§ Prof. B.'s second case was at Lynchburg, O., some six months subsequent to the above. The tumor was solid, and weighed about twenty pounds. The adhesions were slight, but the patient being greatly emaciated at the time, sank exhausted some forty-eight hours after the operation.

Case 6.—Blackman.§ In this case, Prof. B. made a short exploratory incision, in a case of abdominal tumor, supposed to be ovarian, but finding very strong adhesions, at once abandoned the operation. The patient died a few days subsequently, but not, as he

* It is possible that Prof. A. had additional cases. See the Letter of Prof. Delamater, given as a Supplement.

† Letter from the operator.

‡ *Cincinnati Lancet*, March, 1856.

§ Letters from Prof. B.

supposes, from the operation. The autopsy revealed the presence of a tumor, composed of both uterus and ovaries, in which a portion of the small intestines was completely imbedded, so that any attempt to withdraw it from the abdomen would inevitably have ruptured them.

Case 7.—BLACKMAN.* This case occurred only a few weeks since. The patient had been tapped some eight or ten times. Extensive adhesions were encountered. The tumor was unilocular, and weighed about twenty pounds. Notwithstanding the most liberal use of opium, peritonitis supervened, and the patient died, at the end of sixty-one hours.

Case 8.—BOWLES, J. D.,† of Harrison, O. The patient was Mrs. Brant, æt. 25. The operation was performed Aug. 5th, 1844. A year previously, a small tumor appeared in the left illiac region, which grew steadily. At the time of the operation, it occupied the whole of the lower part of the abdomen, extending upwards to a point midway to the umbilicus and ensiform cartilage. Its surface was hard and uneven. It could be moved freely, in a lateral direction, and somewhat in a vertical direction. The vagina and os uteri were healthy; the former inclining to the left. The tumor could be felt through it. She complained of pains in the loins and thighs, at times resembling parturition. In most respects the various functions of the body were performed in a healthy manner. She was the mother of four children.

The preparation of the patient, position, etc., were as usual. The incision was in the linea alba, and nine inches in length. The omentum was in front of the tumor, which was adherent to it, as well as to the uterus and bladder. The pedicle was "about two inches wide;" its blood-vessels being large and distended. It was transfixed by a double ligature, and tied in two parts. Not a jet of arterial blood was seen.

Dressing as usual. The after-treatment was very simple. On the thirteenth day her health was better than before the operation. The ligature had not yet come away.

The attachment was to the right broad ligament, instead of the left, as was expected from the history of the case.

The tumor was solid, and weighed five pounds. It was evidently fibrous in its character.

* Letters from Prof. B. † *Western Lancet*, 1844.

Case 9.—BUCKNER, P. J.,* of Georgetown, O. This operation was performed April 14, 1848. The patient was Mrs. Lawrence, aged 32, of Winchester, Adams county, Ohio; the mother of six children. The tumor commenced six years previously, low down in the left illiac region. When first observed, it was about the size of a goose egg, and slightly movable. In a few months it seemed to occupy the right side. About a year and a half after it first presented itself, she was delivered of her fifth child. She lost sight of the tumor at the sixth month, which at delivery seemed to have returned to its original size. Two and a half years subsequently, she was delivered of her sixth and last child, which left the abdomen as prominent as at the sixth month. In the absence of pregnancy and lactation, she menstruated regularly.

The abdomen, at the time of the operation, was as prominent as at the full period of utero-gestation; having a sulcus running from the epigastric to the illiac region. The left side was prominent, soft and elastic, fluctuating distinctly. The right side was hard and firm, but elastic. The os uteri was healthy, and within an inch and a half of the os externum. Bowels were evacuated, and the diet reduced, for some days, preparatory to the operation.

The incision was in the linea alba, and extended from the umbilicus to the pubic symphysis. Eighteen pints of imperfect pus were discharged. The parieties of the sac were firmly united to the abdomen from one semilunar line to the other, and from a point three inches above the umbilicus to within an inch of the pubes. It was impossible to distinguish the line of adhesions, so that, after emptying the sac, a fold of its posterior wall was pinched up, and found not to be adherent to the parts beyond. This was drawn out, and divided with a knife, so that the hand passing through it might thus reach the lateral adhesions. The left side being thus freed from attachments, the walls of the abdomen collapsed, leaving the right side as prominent as ever.

Here was another mass, containing a similar fluid, filling the entire right side, and dipping down into the pelvis. This consisted of two cysts, the larger of which was punctured, discharging six pints of fluid similar to that already evacuated. The superior surface of the cyst was adherent to the omentum and walls of the abdomen, from the umbilical to the right hypochondriac region. This

* *Ohio Med. & Surg. Journal* for Jan., 1849. Also *Western Lancet* for 1848. Also Proceedings of O. S. Med. Society for 1851.

was the most firm and difficult point to overcome in the operation. In effecting it the omentum was lacerated, and bled so as to require a ligature. To facilitate this stage of the operation, the incision was extended, so as to make the entire wound eleven inches. The pedicle arose from the broad ligament, embracing the fallopian tube and ovary, and was two inches in diameter. It was transfixed, and tied in two lateral halves. Wound dressed as usual, with only five interrupted sutures, however. The operation occupied an hour and a quarter. The cyst weighed twenty-eight and a half pounds; the solid portion amounting to four and a half pounds.

On the thirty-fourth day, the last ligature came away. On the first of June, the patient was walking about, her health and strength improving daily.

After the lapse of more than two years, this lady was in good health, and menstruated regularly.*

Case 10.—BUCKNER.† This operation was performed June 31, 1850. The patient was Mrs. Carter, of Cincinnati, aged 39 years, and the mother of several children. A round tumor was felt through the walls of the abdomen, elastic and movable, with but little sensibility.

The abdomen was divided in the linea alba to the extent of eight inches. This tumor presented numerous adhesions, which were divided with the knife. The pedicle was about an inch in diameter, and arose from the right ovary and broad ligament. It was secured by a single ligature. About the time of closing the wound, from efforts to vomit, the bowels protruded, and were returned with difficulty. The dressings were as usual. The wound healed kindly, although the general symptoms, at times, were alarming. Thirty-nine days after the operation, the ligature was removed, and the patient was able to walk about the room. Mrs. Carter is still living in Cincinnati, in the enjoyment of perfect health.‡

Case 11.—BUCKNER.§ This patient was Mrs. W., of Augusta, Kentucky. The operation was performed June 15, 1848.

Two distinct, solid tumors could be felt through the walls of the abdomen, one freely movable in the umbilical region; the other firmly fixed in the hypogastric and illiac regions. The vagina was much

* Proceedings of Ohio State Med. Society for 1850.

† Proceedings Ohio State Society for 1850; also, *Ohio Med. and Surg. Journal* for 1849, and for Jan. 1850.

‡ Recent Letter from Dr. Taliafero.

§ Proceedings of Ohio State Medical Society for 1851.

shortened; the cervix greatly elongated, the os resting behind the symphysis pubis. The tumor was distinctly felt through the walls of the rectum, being solid and irregular; it was firmly packed down into the pelvis, from which it could not be moved.

On making a long incision in the linea alba, the superior tumor and bowels immediately protruded. Its pedicle was of the size of the thumb, and attached to the lower one. It was ligated, and the tumor removed. The lower tumor was lifted out of the pelvis with difficulty, though no adhesions existed. Its pedicle was very large, arising from the left broad ligament. The left ovary being apparently in a diseased state, it was deemed best to remove it. The pedicle was ligated in four equal parts. Dressings as usual. The patient died of peritonitis on the sixth day. The tumors were fibrous in character.

Case 12.—BUCKNER.* The patient, Mrs. Tegarden, of Fairfield county, was the mother of nine children. The tumor was of two years' growth, commencing after the eighth confinement. During the latter part of her ninth pregnancy, she suffered very much from colic. The operation was performed October 4, 1851. The incision, nine inches in length, was in the linea alba. On exposing the tumor, it was found not to be omental, but mesenteric, being bound to the posterior aspect of the abdomen by little more than a reflection of peritoneum. On the anterior aspect of the mass, the small intestine was intimately adherent for twelve inches. This being separated, it was found necessary to ligate several vessels. On the ninth day, the wound having already united, was again opened in the lower part, and about two pints of fetid, decomposed blood were removed. The patient recovered within seven weeks. We learn from Dr. Geo. E. Eels, who knows her well, that this lady is still living.†

Case 13.—BUCKNER, WILLIAM,‡ deceased. This gentleman operated a single time. The patient was a young lady, aged about twenty. The tumor was fibrous in character. The patient died of hemorrhage on the third day.

Case 14.—CHAMBERLIN, E. K. A considerable degree of perseverance in making inquiry has not resulted in even the slightest success, in obtaining particulars in reference to this case. It was never published. The case is given in Atlee's tables, on the authority of a

* *American Journal Medical Sciences*, 1852.

† Dr. Taliafero has the impression that Dr. P. J. Buckner performed an operation in Butler county I can get no clue to it, owing to the death of the operator.

‡ Letter from Dr. Taliafero.

letter from Dr. Chamberlin himself. It is believed that Dr. C. resided in Cincinnati, though even this is not quite certain. Buckner's report, Atlee's tables, and Lyman's monograph, all attribute it to Ohio. The patient died on the table.

Case 15.—CRUME, P. M.,* Prof. of Obstetrics in the Cincinnati College of Medicine. This operation was performed in 1848. The patient, Mrs. Evans, of Preble county, was married at about the age of nineteen years. In the course of a year, she supposed that she was about being confined, but after severe suffering, continuing two weeks, what appeared to be parturient efforts subsided, to be renewed again at the end of about a year. These annual attacks continued for nine years, greatly impairing her general health. A short time prior to the tenth annual recurrence, the patient being thirty years old, Prof. Crume was induced to undertake the extirpation of that which was supposed to be an ovarian tumor. It proved to be an "irregular tumor, weighing nine and one-half pounds, evidently the result of a tubular conception. The patient died on the third day, probably in consequence of the low temperature of the room during the operation, inflammation having set in at an early period after the first dressing."

Case 16.—DORSEY, G. V.,† of Piqua, Miami county. This case has not hitherto been published.

The patient was Miss C., of Miami county, Ohio, aged thirty years. The operation was performed April 7, 1858; patient had suffered from dyspepsia and deranged menstruation for more than two years. Four months previously, the doctor recognized a considerable enlargement of the left ovarium. In conformity with the wishes of friends, a careful use of iodine was resorted to. This, in various preparations, was kept up for several months, without any obvious benefit. The tumor continued to grow, and finally became so large as to fill the whole left side of the abdomen, forcing out the parieties in every direction, and impeding respiration by preventing the descent of the diaphragm. Under these circumstances, having explained fully to the patient and her friends the dangers of the operation, he proceeded to its removal, the patient being anesthetized, and in the ordinary position.

An incision about eight inches in length was made in the linea alba, and this met by a transverse incision, extending on the left side to the distance of six inches. The abdomen, being fully open, reveal-

* Recent letter from Prof. Crume. † Letter from Dr. Dorsey.

ed at once the extent and numerous adhesions of the tumor. It occupied the whole of the left side of the abdomen, forcing the intestines in the opposite direction, to which, with the spleen, omentum, and abdominal parieties, it was strongly adherent. It was penetrated in every direction with large blood vessels. Those of the neighboring parts, especially of the mesentery, were exceedingly large, many of those of the mesentery being of the size of the little finger. The greater part of the adhesions were separated with the hand; in one or two places, however, arteries were divided with the knife, and carefully secured. We conclude the report in Dr. Dorsey's own language:

"Having, after nearly an hour's work, arrived at the root of the tumor, nothing like a pedicle was found, but only a broad adhesion of a diseased mass, occupying the place of the left ovarium, to the adjoining parts. It was found that the only possible means of removing the immense tumor was to introduce a strong, double ligature into a portion as close as possible to the healthy parts, and tie in each direction, so as to encircle the whole attachment. This being done, the wound was carefully cleansed, and closed with stitches and adhesive straps. A large amount of fluid escaped from the tumor during its removal, and the solid portion, which remained, weighed nearly seven pounds. It was remarked, that although so great an amount of substance had been removed, still the abdomen remained greatly enlarged; this seemed to arise from the distended state of the intestines, and the enlarged and thickened state of the mesentery.

"The patient recovered from the effects of the chloroform, and for two hours seemed pretty comfortable, complaining only of intense burning in the abdomen. Shortly after this, however, she became restless; insisted on being turned; had fainting attacks, catching of the breath, irregular respiration, and finally sunk and died about four and a half hours after the termination of the operation."

Case 17.—Dunlap, A., of Springfield, formerly of Ripley. This case was refused publication by a western medical journal; it was accordingly never published, but referred to incidentally, in the American Journal of the Medical Sciences, for Oct., 1854. The patient was Mrs. R., of Ross county, Ohio. The tumor was multilocular, and weighed forty-five pounds. "The patient died on the seventeenth day after the operation of diabetes." The wound healed mainly by the first intention. No post mortem was made.

Case 18.—DUNLAP.* The patient was Mrs. Hopkins, of Brown county, O. Was aged thirty-five years. Had given birth to six children, the last three years previous to operation. Operation performed June 10, 1850. Menses ceased four months previously. Abdomen as large as at six or seven months' pregnancy. Had pain in the back, soreness through the lower part of the abdomen, and uterine hemorrhage. Incision in linea alba eleven inches in length. One gallon of thick opaque fluid was drawn off. Adhesions were extensive, but not firm, and were readily separated by the fingers. Size of pedicle not noted. Was ligated in two equal halves by a double ligature. Wound closed by five interrupted sutures, with strips of adhesive plaster intervening. Great prostration followed, from which there was complete reaction within two days. On the sixteenth day, there was free discharge from the vagina, which reduced a considerable tumor in the hypogastric region. About the same time, there was free discharge from the wound in the abdomen. The ligatures came away on the thirty-first and thirty-fourth days, respectively. In six weeks she was able to be on her feet. Mrs. H. has since given birth to two children.†

Case 19.—DUNLAP.‡ The patient, Mrs. B., of Bracken Co., Ky., aged thirty-seven years, the mother of five children, was tapped for ascites four times. After the second tapping, a tumor was discovered in the abdomen. The operation was performed March 24, 1853. At that time she was reduced in flesh, the abdomen enormously distended, with fluctuation in every part except the right illiac region. She was most of the time confined to bed. The opening was near twelve inches in length. The adhesions were slight, and were readily broken up by the hand, except where tapping had been performed, where the knife was called into requisition. The pedicle was transfixed with a needle, armed with a double ligature, and each half ligated. Ordinary dressing.

On the thirteenth day after the operation, she walked across the room with assistance. The ligatures came away on the twentieth day, at which time she was able to walk into the adjoining room without assistance. Nothing is reported as to the condition of the menstrual function; nor is the tumor described, except that its weight is stated to have been thirty-seven pounds.

* *Western Lancet* for June, 1851. † Letter from Dr. Dunlap.

‡ *American Journal Medical Sciences* for Oct. 1854.

Case 20.—DUNLAP.* The patient was Mrs. F., of Clermont Co., O., aged 46 years. Had ceased to menstruate six years previously. Operation performed May 17, 1853. About three years previously, she discovered a tumor, about the size of her fist, floating in the lower part of the abdomen. This had gradually enlarged, till it filled the cavity of the abdomen. Fluctuation was distinct in every part. She was greatly reduced in flesh, but her general health was good.

The incision was ten inches in length. The left ovary was removed. Dressing as usual. Bowels were moved on the third day by medicine. A sanguineous discharge, resembling the menstrual, made its appearance on the third day. She was able to be up on the fourteenth day. Ligatures came away on the twenty-seventh day. The tumor, we infer, was multilocular, and weighed thirty-one pounds. The patient has since enjoyed uninterrupted health, and is more fleshy than ever before.

Case 21.—DUNLAP.† This operation was performed in 1855, on Miss W., of Davenport, Iowa. The tumor was fibrous, and weighed thirty pounds. The patient died of hemorrhage.

Case 22.—DUNLAP.† This operation was also performed in 1855. The patient was Mrs. Ramsey, of Winchester, Adams county, Ohio. The tumor was a multilocular cyst, of sixty pounds weight. The patient recovered.

Case 23.—DUNLAP.† The patient was Miss M., of Harrison Co., Ky. The operation was performed in 1856. The tumor was multilocular, and weighed twenty-four pounds. The patient recovered.

Case 24.—DUNLAP.† This operation was also performed in 1856. The patient was Mrs. L., of Scioto county, O. Nine months previously, Dr. Kimball, of Lowell, Mass., made an opening, six inches in length, into the abdominal parieties, decided the operation to be impracticable, and adandoned it. Dr. D. removed a multilocular tumor of thirty-two pounds in weight, and the patient recovered.

Case 25.—DUNLAP.† This case also occurred in 1856. The patient was Mrs. W., of Adams county, O. The tumor was a multilocular one, of thirty-three pounds. Recovered.

Case 26.—DUNLAP.† This again occurred in 1856. The patient was Miss B., of Fayette county, O. The tumor was fibrous, and

* *Amer. Jour. Med. Sciences* for Oct., 1854.

† Letter from Dr. Dunlap.

weighed one hundred and six pounds. The patient died ten days after the operation "f om inanition."

Case 27.—DUNLAP.* Patient was Mrs. R., of Chillicothe, Ohio. The tumor was a simple cyst, weighing 136 pounds. Patient "died on the seventh day from congestion of the brain."

Case 28.—DUNLAP.* This also occurred in 1856. Patient was Mrs. B., of Fort Wayne, Ia. The tumor was a multilocular one, of thirty-two pounds in weight. Died in thirty-six hours from "peritoneal inflammation."

One of the above cases, stated to have recovered, died "of disease of the lungs," but not until it "could be said to be free from the danger of the operation. Six of these cases are still living, and enjoying good health."*

Case 29.—FARRELL, JOHN,† of Warren, Trumbull county, Ohio. The patient was Mrs S., of Coitsville, O. The tumor originated in the left ovary, and occupied the whole of the abdominal cavity. The patient was tapped five times, at intervals of four or five weeks, losing about two gallons on each occasion. An incision was made in the linea alba eight and a half inches in length. The tumor was found to be extensively adherent to the uterus, intestines, and abdominal parieties; so much so that it was deemed expedient to abandon the operation. The wound was dressed with sutures and adhesive straps, and united by the first intention, except where a broad flat tent was introduced into an opening made into the sack. This was left for several months, and by it a discharge was maintained to the time of her death. This occurred, in connection with an attack of acute pneumonia, about twenty-two months after the first tapping, and about a year, it is inferred, after the attempt at extirpation.

Case 30.—FARRELL.† Dr. F.'s second case was Mrs. McCally, of Warren, Trumbull county, O., aged 28; the mother of five children. The operation was performed in August, 1850. The tumor was first observed four years previously. The incision was ten inches in length. The cyst was a compound one, involving the right ovary. The ligature came away on the thirty-second day. The patient recovered excellent health, after severe peritonitis, and a slow closure of the wound by granulation.

* Letter from Dr. Dunlap. Dr. D. was connected with Dr. Bradford, of Kentucky, in another successful case. It does not fall within the scope of the Report, because it was not in Ohio, and Dr. B. was the principal operator. He was also "in partnership" with Dr. B. in four of the cases given.

† Proceedings of Ohio State Medical Society for 1851.

Mrs. M. menstruated regularly after the operation; but up to November, 1854, when she left Warren, she had not borne offspring.*

Case 31.—FRIES, GEORGE,† of Cincinnati. The patient, Mrs. C., was 51 years of age; the mother of several children; menstruated regularly, and had always enjoyed tolerably good health.

Soon after her last confinement, eight years previously, she observed, in the right illiac region, a small tumor, which grew at a moderate rate till a year previously, when its growth became rapid, and it soon filled the cavity of the abdomen. She suffered but little, aside from the mere distension of the abdomen. There had, at no time, been the ordinary signs of inflammatory action about the tumor. It was smooth, regularly protuberant, changing but little with the altered position of the patient. Abdomen fluctuated distinctly on percussion. In the dorsal decubitus there was dullness at the umbilicus, with resonance in the lumbar regions. No bulging of the sides of the abdomen. The fluid was supposed to lie in front; the intestines behind. The fluid was believed to be contained in a unilocular cyst, which being readily shifted from side to side was believed to be free from adhesions.

Operation, Oct. 30, 1856. There is no account of preliminaries. Incision three inches in length, low down, and in the linea alba. The tumor being exposed, was emptied of about thirty pounds of colorless fluid, when the sac was withdrawn, its pedicle ligated, and the wound dressed in the usual manner, except that a large darning needle was passed through the pedicle transversely, just interior to the ligature, and exterior to the wound. This was done for the purpose of producing adhesion between the pedicle and the edges of the incision, and preventing the escape of sloughs, etc., into the peritoneal cavity.

The after treatment consisted mainly in an appropriate regulation of her diet, and the administration of opium, of which she took 24 grs. on the first, 15 on the second, and 10 on the third day. On the fourth day, having had no evacuation of bowels after the operation, she was ordered Croton oil and turpentine in sufficient quantity to produce the desired effect.

The ligature came away on the fourteenth day. This lady resides in Cincinnati, and is in excellent health.‡

* Recent letter form Dr. Julius Harman, who, with Dr. J. B. Harman, conducted the after-treatment.

† *Western Lancet* for December, 1856. ‡ Recent letter from Dr. Fries.

Case 32.—FRIES.* The name, age, etc, of patient are not given. We infer that the operation was performed about the 1st of May, 1856. Six weeks previously she had given birth to a two and a half months' fœtus. The preparatory treatment consisted in the use of aperients and light diet. The incision was about ten inches in length. The peritoneum was found closely adherent to the walls of the sack, and without being aware of it, both cavities were opened at once, allowing a large quantity of fluid to escape. The adhesions were found to be such that it was thought best to evacuate the fluid and allow the sack to remain, and depend upon injections to prevent reäccumulation. The wound was accordingly closed. Six days afterward the tumor was found to be filling rapidly, and on the tenth was nearly as large as before the operation. The next day the imperfect cicatrix opened and a very fetid fluid escaped from the wound. Injections of nitrate of silver were now used for three or four days. This failing, various other fluids were injected without avail. Finally the attempt at extirpation was renewed, and crowned with success. The adhesions, extending over only about one-half of the surface, were easily detached. The pedicle was allowed to remain in the cavity of the peritoneum. The ligatures embracing it passed out through the lowest point of the incision. The diarrhea continued, however, and the patient died on the seventh day after the removal of the tumor. The reporter expresses the opinion that he erred in not completing the operation at first.

Case 33.—HAMILTON, J. W.,† Professor of Surgery in Starling Medical College. The patient was Miss Tonor, of Hardin county, aged 26.

A tumor of the size of a hen's egg, in the left illiac region, was noticed in February, 1857. This apparently disappearing, she soon afterward became conscious of enlargement of the abdomen. At the end of a year it had advanced so far as to attract the attention of her friends. She ceased to menstruate in February, 1858. For more than a year previous to the operation she had not been able to pass a whole night in the horizontal posture, except occasionally from the free use of morphine. For eight months she had very rarely eaten without vomiting, or been able to sit up a whole day. Appetite poor; emaciation very great, her estimated weight being 70 pounds, without the tumor. Only about ten ounces of urine were secreted in each 24 hours. Pulse 108, with vesperal acceleration.

* *Western Lancet* for March, 1856.

† *Ohio Med. and Surg. Journal* for Jan., 1859.

She was the victim of excruciating neuralgia, which was especially severe about the sacrum and loins.

The os uteri was against the symphsis pubis; soft parts about urethra edematous, the cervix seeming to be shortened. Simpson's sound could only be passed about half an inch. Uterus firmly fixed, without tenderness or fluctuation. A hard mass, believed to be the retroverted body and fundus, laid behind and above the posterior lip of the os. An examination per rectum gave satisfactory evidence of the correctness of this supposition, revealing the presence, furthermore, of two nodules, of the size of hazel nuts, supposed to be enlarged lymphatic ganglia, in the recto vaginal septum.

A firm, fluctuating mass distended the abdomen to its utmost capacity. Fluctuation was comparatively obscure in the illiac region. Percussion elicited no resonance, except about the epigastrium and hypochondriac and lumbar regions. The enlargement was slightly greatest on the left side.

Oleum Ricina and an enema were given by way of preparation, and the temperature of the room was carefully maintained at 82° F.

The patient was placed in the usual position, and anesthetized by the use of chloroform. The external incision was in the linea alba, and ten inches in length. The thick brown serous contents of the cyst were withdrawn by the use of a large trochar and canula. The adhesions were abundant, but were separated in the upper half of their extent with comparative facility. Below the level of the cristae illii, they were not only abundant, but most difficult of separation. On reaching the bladder, it was exceedingly difficult of identification. It seemed to be a secondary cyst, in the walls of the primary one. A sulcus was, however, finally traced by peeling the long shreds of lymph from above downward, and observing that they passed between them. The vascular supply was so abundant in this situation, that a resort to cutting instruments was not admissible. Though separated exclusively with the fingers, the hemorrhage was by no means inconsiderable. The entire brim of the pelvis, and inner aspect of the false pelvis, with both ovaries and broad ligaments, were the sites of equally powerful attachments. The separation of them was most tedious and difficult, and of necessity, was effected without the use of cutting instruments. The uterus was free and deeply wedged down in the true pelvis.

These efforts were successful in separating the cyst from everything except the ovaries, and a small portion of the broad ligament

on each side, which was inseparable to everything not involving the use of cutting instruments. These attachments were treated as pedicles, being transfixed and ligated with ligatures consisting of four sizes of saddlers' silk, which were brought out at the lower extremity of the wound, in the usual manner. The latter part of the operation, which lasted more than forty minutes, was performed amidst the most anxious apprehensions for the safety of the patient.

On the 13th day, for the first, there were free fecal evacuations. On the 20th day the ligatures came from the left, and on the 25th from the right side. On the fortieth day she was removed to her home in a distant part of the State. She is now in tolerable health, though she continues to suffer from neuralgic pains.

The most striking feature of this case relates to its pedicles. As ordinarily understood, it had *none*, but such as they were, it had *two*. The walls of the cyst were very thin, and the ovaries and broad ligaments seemed to enter into and constitute so much of them at that point. Although it is certain that the cyst originated in connection with the left ovary, its inseparable attachments on the right side were still more extensive.

None of the ligatures were cut off, so that sixteen sizes of saddlers' silk (a pretty good seton), were brought out from *each side*. This course was suggested by a conviction that the long shreds of lymph, and the large pedicles, could not fail to produce extensive and protracted suppuration. Without this opportunity for the escape of irritating fluids, the case would probably have been fatally aggravated by their presence.

The cyst weighed but little more than a pound, making the weight of the entire tumor slightly more than twenty-five pounds. It had in its walls four minor cysts, each large enough to hold a few ounces.

Case 34.—HAMILTON.* The patient was Mrs. Davens, aged 36, of Franklin county, Ohio. The operation was performed Nov. 13, 1858. She had suffered three miscarriages, the last of which occurred ten years previously. Eight years previously she noticed a small kidney-shaped swelling in the situation of the right ovarium. It grew at times rapidly, but with quiescent intervals. Till within three or four months it had been perfectly movable, falling about in the abdomen, from change of posture. She had menstruated until within a few months.

The tumor was an ovoid mass, extending from the right iliac re-

* *Ohio Med. and Surg. Journal*, Jan. 1859.

gion, to the left hypochondriac and epigastrium, the transverse admeasurements of which were such as quite completely to fill the abdominal cavity. Fluctuation was very distinct through its long diameter, and about the two extremities of that admeasurement, but was never detected between points transversely related to each other. The anterior and left aspects were soft and elastic, but the right was firm and unyielding. Vagina and cervix uteri were healthy; the former was, however, corrugated, and the latter acuminated and elongated to a remarkable degree. Sound passed two inches into uterus.

The external incision was in the linea alba, and about eight inches in length. The adhesions were very firm and intimate. A surface was separated as large as a hand or two, amidst the utmost obscurity as to the line of connection between the tumor and the peritoneum. The relations of the peritoneal investment of the tumor, and the parietal peritoneum, was as intimate as that of the different lamina of the skin. For the purpose of further testing the practicability of the operation, a large trocar was introduced toward the lower extremity of the incision, which failed to reach fluid. Introducing it at a higher point and carrying it deeply, it still failed. Owing to the strength and intimacy of the blending of the peritoneal layers, the impracticability of recognizing or following the line of union, and the inability to reduce the size of the tumor by the trocar, it was deemed prudent to desist. In the dressing ten silver sutures were introduced; otherwise it was as usual. This patient died at the end of forty-two hours.

An autopsy was had six hours after death. The abdomen was filled with a mass, black as tar, and as fragile on its surface as wet brown paper. Its anterior and lateral surface was perfectly adherent, though slight effort was sufficient to separate it, or tear its outer portion to pieces. The posterior surface and all the organs of the abdomen and pelvis were free from both attachments and disease, but were discolored more or less, wherever they touched the sphacelated mass. The pedicle was three and a half inches long, and but little larger than a very large rye straw. It was attached to the right ovarium, at its junction with the broad ligament.

The tumor was estimated at eighteen pounds. It was fifteen inches in length, and shaped like a long watermelon. The right side, and masses scattered through it irregularly, were dense and fibrous. The left side and summit consisted of a very succulent, semi-gelatinous

substance, with occasional bands of fibrous tissue, and very numerous sinuses. The lower part consisted mainly of sinuses or cysts, the largest of which was capable of holding three or four pints of fluid; others about a pint. The most of them being small, at the same time very numerous, however, they presented the appearance, in a greatly exaggerated degree, of a cut surface of very coarse sponge. All these cysts were empty, and yet not collapsed. While the surface was black, sphacelated, and perfectly fragile, the central parts were firm, and apparently only gangrenous.

Case 35.—HAMILTON. This case was operated on April 20th, seven weeks ago. The patient was Miss W., of Athens county, Ohio, aged 24. A slight tumor was noticed in the left illiac region, about a year previously. This was soon lost in a general enlargement of the abdomen. At the end of seven or eight months the distension of the abdominal walls had become so great as to demand tapping, which, being performed, 25 pints of fluid escaped, leaving a tumor of some size in the left hypochondriac region. The sac refilling rapidly, was again tapped about the first of March, discharging about half as much fluid as on the former occasion, and leaving a very large, apparently solid mass above and to the left of the umbilicus. As the fluid escaped, the internal extremity of the canula was very much depressed.

The first examination of the case, by the operator, was about the first of April. The patient evidently inherited a slight scrofulous taint. Was emaciated, especially about the face. Menstruated regularly. Aside from the usual effects of the interference of the mass with the surrounding parts, she was in very fair general health. The abdomen was quite symmetrically enlarged, presenting very distinct fluctuation over a large part of its surface. In the left hypochondriac and lumbar regions, however, there was no obvious fluctuation, the indications being rather those of a solid body.

A cathartic dose and an enema were given by way of preparation. The incision was from the umbilicus to the pubes, about 8½ inches in length, the patient being in a state of anesthesia. The linea alba was not in the median line, so that the incision fell upon the inner margin of the rectus muscle of the right side. Although the dissection was conducted in the most careful manner, the cyst was not recognized till it was entered. A canula was then introduced, and the largest sack emptied of 2 or 3 gallons of clear, ascitic looking fluid. This left a mass above, suggestive of the presence of an immensely

enlarged spleen. The openings in the peritoneum and sac were immediately enlarged, so as to admit the finger, which at once recognized fluctuation. The trocar being introduced no fluid escaped. The finger being now used as a director, the presenting cysts were slit up with a probe-pointed bistoury. Their contents being semi-solid, it was found necessary to scoop them out. The tumor being thus very materially reduced in size, the hand was introduced and the adhesions separated without difficulty. The pedicle was of the size of the thumb, and was transfixed and ligated in two lateral halves.

The tumor, including its contents, weighed 30 pounds. More than half the mass consisted of a single cyst; the balance of an aggregation of a vast number of pediculated small cysts, the consistence of the contents of which was that of calves-foot jelly. The colors were exceedingly various.

A catheter being introduced in the outset, the urethra seemed to be remarkably long, and to curve around toward the left side. In the course of the operation, the uterus and bladder were found to have been drawn upward and to the left, so as to rest in the left illiac fossa.

The external wound was closed by the introduction of 7 or 8 interrupted sutures of silver, carried through close to the peritoneum. The small size of the greater part of the cysts, and the semi-solid character of their contents, rendered the operation somewhat tedious, twenty-nine minutes being occupied in its performance. Morphine was given in liberal doses, and its continued and liberal exhibition provided for.

The external wound closed at once, but extensive peritonitis, with more or less suppuration supervening, it subsequently separated, through its whole extent. After several weeks of grave traumatic fever, the wound again commenced uniting. At the end of 5 weeks it had healed, with the exception of about an inch at its upper extremity; and the case had assumed so favorable an aspect, that the attending physician did not see it for some days. During this time, unfortunately, a portion of intestine became strangulated in the cicatrizing wound and sloughed, giving rise to a fecal fistula. This, however, was not followed by occlusion of the intestinal canal, fecal evacuations per anum not being suspended. This fistula became the source of great depression and suffering.

July 13, the patient was rapidly recovering, although there was still some fecal discharge through the fistula.

Within less than 2 hours after the tumor was removed, that part of the fluid contents which had been exposed to the air in buckets, was noticed to have a very perceptibly offensive odor, that of sulphureted hydrogen being prominent. In the course of the operation there was free escape of this into the peritoneal cavity, and being quite pasty in character, it was impossible to remove it perfectly. It is supposed, that undergoing decomposition from atmospheric contact, the grave fever which followed was a toxic effect of it.

Case 36.—HAMILTON. The patient was Mrs. Neel, aged 47, of New Birmingham, Guernsey county, Ohio. Mrs. N. is the mother of 9 children, the youngest of which is 6½ years old. Two years previous to operation she received a blow from the elbow of a child, which producing severe pain, fixed her attention, for the first, upon a round swelling, in the right illiac region, of the size of a fist. This increased in size, but soon lost its definite outlines. In developing, it ascended to the right hypochondriac region, and thence downward and to the left. Fourteen months previous to operation the abdomen was enlarged, so as to lead several excellent physicians to the diagnosis of ascites, for which tapping was performed twice, a pint or two of fluid being discharged on each occasion. For the last few months, previously, the prevailing diagnosis was that of ovarian disease.

At the time of the operation, May 25, 1859, the patient was greatly reduced in flesh, with corresponding impairment of strength and digestion; the stomach was totally incapable of receiving more than 3 or 4 ounces of nourishment; the patient was unable to maintain the erect posture for more than a minute or two; could walk, by the greatest exertion, only from 2 to 4 rods; had not been able, for a length of time, to turn over, or raise herself, when recumbent; and could only maintain this posture for about an hour at a time. The abdomen was very greatly and quite symmetrically distended; its circumference was just four feet, the superior portion presenting distinct fluctuation. The lower two-thirds of its parieties presented elasticity without fluctuation, and were greatly thickened by serous infiltration, especially just above the pubic symphysis. Two or three obscure sulci radiated from the region of the umbilicus. A diagnostic tapping being performed above the umbilicus, a sharp jet of a few ounces of limpid serum followed. Carrying a director through the canula, elastic resistance was encountered, which gave way under slight pressure, and was followed by the discharge of serum, to the extent of a few ounces, presenting the appearance of strong coffee.

In this way several septa were ruptured, giving rise to an equal number of varieties of fluid.

Percussion produced no resonance, except in the epigastric and left lumber regions. The abdominal cavity being thoroughly distended, no mobility in the tumor was detected.

Examinations per vaginam and rectum, by the touch and Simpson's sound, indicated everything healthy and natural, except that the uterus seemed to be retroverted. The patient had ceased to menstruate: such cessation was probably independent of the ovarian disease.

The evidently compound cystic character of the tumor—its very great size and rapid growth—its recent origin—the absence of satisfactory proof of former peritonitis—the rapidly increasing interference of the mass with respiration, digestion and nutrition, and a rapidly approaching fatal termination, were assumed as sufficient grounds for deciding in favor of the feasibility and necessity of an extirpation.

The patient being anesthetized, an exploratory incision, an inch long at its bottom, was made just below the umbilicus. Although firm adhesions were found, it was determined to proceed with the operation. The parieties were at once laid open from a point several inches above the umbilicus to the pubes. The serous effusion was such, as that the lower part of this was three and a half inches in thickness. On passing through the peritoneum, a great number of cysts, from the size of an orange down, presented themselves. These were freely divided with the knife as fast as they could be reached. The separation of the surface of the mass was proceeded with as rapidly as the slowly diminishing size of the tumor would admit of the advance of the hand. Thus, the parietal peritoneum, the omentum, and transverse colon, were successively separated. Getting the hand around the mass, it was found free from attachments posteriorly. As it decended it encountered a firm, smooth, serous reflection that at once was recognized as impassable. Introducing the other hand from the left side, and carrying it toward the same point, it passed smoothly behind, without opposition. Dipping into the pelvis, it was found to be occupied by a single cyst, with only moderate attachments. The pedicle was small, but very vascular, and so spread out that it was deemed best to secure it by two transfixions, and an equal number of double ligatures. An effort was made to bring it out at the lower extremity of the incision and

fix it there, but owing to the thickened condition of the parieties this could not be effected; accordingly, the threads only were brought out. Twelve interrupted sutures closed the incision. The latter part of the operation was performed amid the most serious apprehensions for the safety of the patient. Five hours afterward, there was quite complete reaction.

As the bowels were loose and the rectum empty, from a recent cathartic dose, no preparatory treatment was used, except a grain and a half opium, an hour before the operation. An equal quantity was given on its completion. It was found necessary, in the course of the operation, to extend the external incision to the ensiform cartilage, making it, in the distended state of the abdominal parieties, full twenty inches in length. All the abdominal viscera were freely exposed and handled. The liver was found displaced, the right lobe falling down far into the right lumbar region. The left half of the diaphragm was left apparently without support, the heart playing upon and shaking it in a frightful manner. The patient, at this stage, reminded one very forcibly of an eviscerated subject, upon the dissecting table.

"For the first two weeks after the operation, but little was done beyond the regulation of the diet, and the liberal and continuous exhibition of opium. The bowels were then moved, for the first, by injections of warm water and molasses. On the eighteenth and twenty-fourth days, the ligatures came away. About this time there was vomiting, diarrhœa, and an accelerated pulse, which, however, disappeared on the escape of the last ligature, three days after which the external wound had closed. On the sixth day, there being a bad odor from the wound, a catheter was passed into it, and Dr. Peaslee's artificial serum was thrown in. This was continued for two weeks."

On the thirteenth day, "her appetite was good, and she had not suffered as much during and since the operation as she did in one night before."

On the thirtieth day, "she had a good appetite, was gaining strength rapidly; wound completely healed; mind cheerful; in short, there was not an unpleasant symptom about her. She was then sitting in an armed chair, in which luxury she had indulged for several days."

On the fifty-seventh day, she was enjoying excellent health, and was fully restored to her place at the head of her family.

It has been stated that the abdominal parieties were greatly thick-

ened from serous infiltration. The escape of serum from the surface of the wound was so rapid and constant, and so evidently destined to be continuous, that after emptying the pelvic excavation several times, it was found necessary to close the wound and let it accumulate in the abdomen. Furthermore, the attachment to the anterior and lateral portion of the abdominal walls being very strong, its separation was followed by a continuous oozing of blood and formation of coagula on the peritoneal surface; and although these were cleared away, time after time, there is no doubt but the surface of the parietal peritoneum was thus extensively covered subsequent to the operation. These things are mentioned as showing what the peritoneum is capable of tolerating in these operations.

The firm resistance which the hand met behind the mass, was evidently the root of the mesentery. At a later stage, it was discovered that the transverse colon was adherent to the summit of the tumor. The hand had passed behind it, so as to reach that part. The colon was separated without difficulty.

The solid mass rolled out weighed twenty-five pounds. The fluid portion collected, twenty-seven pounds, a quantity of fluid escaping, variously estimated at from five to fifteen pounds; making the tumor about sixty pounds in weight. It is a fine specimen of the non-pediculated, proliferous cyst. A single cyst filled the pelvis, and contained four or five pounds. Two or three cysts occupying the epigastric region are large enough to contain two or three pounds each. With these exceptions, the superficial ones were only large enough to contain from three to five ounces, the deep-seated ones being much smaller. The contents of the larger ones were somewhat limpid; those of the smaller ones were thick, and semi-gelatinous, and exceedingly various in color. The batch of cysts, thoroughly emptied, weighs nine pounds.

Case 37.—HOLSTEIN, J. G. F.,* then of Zanesville, now of the National Medical College. Patient was Miss Smitley, of Muskingum county, Ohio, aged twenty-seven; tumor was of three years standing. Nothing but increased size of the abdomen, and weariness from carrying her burden, caused her to notice any deviation from health; the abdomen was tense, imparting fluctuation, like common dropsy. The fluid was evidently in a cyst within the abdomen, and could be lifted about in mass. The canal and cervix uteri were healthy. Simpson's sound passed to the depth of two and a half

* *Cincinnati Lancet* for December, 1855.

inches. Uterus was more movable to the right than to the left. Menstruation regular.

The usual preparation of the bowels, elevation of temperature of room, and position, were observed, and the operation performed in the ordinary manner, with an incision seven and a half inches in length, October 12, 1855. There were no adhesions. Cyst was drawn from the cavity of the abdomen by traction, upon a ligature which had previously been made to transfix its walls, assistants meanwhile exerting pressure upon the side with sponges wrung out of warm water. The left ovary was implicated, the pedicle consisting of the broad ligament and fallopian tube, whose fimbriated extremity, as large as the hand, was spread over the tumor, apparently holding it in its grasp. A needle, armed with a double ligature, was passed twice through the pedicle, and tied firmly on each side. Not four ounces of blood were lost, and none of the viscera were exposed except the uterus. Dressing as usual.

We infer that the cyst was a simple one. The whole tumor weighed twenty-six pounds, of which the cyst was two and three-fourths pounds.

The cure progressed without serious symptoms. Bowels acted on the sixth day, in response to a dose of six com. cathartic pills. She commenced sitting up on the eighth day; ligature came away on the seventeenth. The only anodynes noted were teaspoonful doses of Cam. Tinc. Opium. Patient left for her home, a distance of fifteen miles, Oct. 31, "in exuberant health and spirits." Dr. Dillon, of Putnam, Ohio, states, in a letter just received, that Miss S. is in perfect health.

Case 38.—Howard, R. L.,* formerly Professor of Surgery in Starling Medical College. The patient was Miss Jones, aged seventeen, of Franklin county, Ohio. Her health was very greatly impaired, and death was apparently near at hand. The tumor was a large oval mass, filling the cavity of the abdomen, and distending its walls. Obscure fluctuation revealed the presence of more or less fluid in the center of the tumor. The uterus, on examination per vaginam, seemed to be healthy. After two tappings, followed by rapid refilling, the tumor was extirpated. The incision was from a point three inches above the umbilicus, down the linea alba, to the pubes. The tumor was attached to the uterus somewhat, but was otherwise free

* *Ohio Medical and Surgical Journal*, vol. 5.

from attachments. The peritoneum surrounding the pedicle was divided on a grooved director in the situation of the ligature, and the pedicle divided an inch from it. The patient recovered without an unpleasant symptom.

It is now more than seven years since this operation was performed. This woman has been married for several years, and is in perfect health, though in common with other married sisters, is childless.

Case 39.—HOWARD.* Prof. H.'s second case was that of Mrs. Matthews, of Franklin county, Ohio. She was aged twenty-eight, and was the mother of four children. Previous to her last pregnancy, the tumor was large enough to fill and distend the cavity of the abdomen. During her term, however, she continued to enjoy good health, suffering only from distension. From the time of her last confinement, which was two years previous to the operation, the tumor grew rapidly. When first examined by Prof. Howard, in 1852, she was firmly convinced that she was six months pregnant, resting her opinion upon the fact that her catamenia had been absent for that length of time, and that she was sensible of the child's motion. On the first day of September, 1853, she was tapped, when nine gallons of fluid were discharged, which left a large solid growth in the abdominal cavity.

On the fourteenth of October, eight gallons of fluid were removed by tapping, and the operation proceeded with at once. The incision extended from near the umbilicus to the pubes. The tumor was found firmly adherent to the parietal peritoneum. The adhesions were broken up from four to six lines beyond the boundaries of the incision. Their character was such as to lead him to abandon the idea of an extirpation. He accordingly removed a portion of the cyst, and introduced a tent, made of lint, into its cavity, for the purpose of preventing closure. A low form of fever attacked the cyst and peritoneum, resulting in the death of the patient on the seventeenth day.

Case 40.—HOWARD.† Prof. Howard's third and last case was never published. The patient was Mrs. ——, near Bellville, Richland county, Ohio. We have not succeeded in procuring the details. From Dr. Sachse, of this city, who assisted him, we learn that the adhesions were such as to lead to his abandoning the operation after it was commenced. The patient died at from two to seven days subsequently.

* Letter from Dr. Beach—verbally from Dr. Sachse.

† *Ohio Medical and Surgical Journal*, vol. 5.

Case 41.—LITZENBERG,* of Hamilton county, O. Mrs. J. R., of Boone county, Ky., became his patient April 29, 1855. Tumor had been growing for two years; for the last six months, very rapidly; and, commencing in the right illiac region, it extended from that point upward, and to the left. It was now a large pelvo-abdominal tumor, greatly distending the abdominal parieties. The uterus could be moved quite freely on the point of the finger. The outline of the tumor could be felt in the abdominal cavity, with a firm band dividing it into two nearly equal parts, giving the sensation of two distinct tumors. The whole presented distinct fluctuation.

Two tappings were made, securing the evacuation of fourteen and sixteen quarts, respectively, of albuminous fluid. These did not materially reduce the size of the abdomen, which, on the contrary, continued in a state of great tension. Emaciation was extreme, but her appetite continued good.

The operation was performed May 22d, after the usual preparation. The incision was in the linea alba, and eighteen inches in length. The mass was found adherent to the parietal peritoneum, omentum major, colon, small intestines, and illiac fossæ. These were separated by the hand. Pedicle, we infer, was attached to the right ovary, and was an inch in diameter. It was secured by a double ligature, and left long enough to reach the lower extremity of the external incision. From the point of its connection with the body of the tumor, it extended upward and to the left, constituting thus the firm band before spoken of as dividing the mass into two nearly equal parts. Dressing as usual. During the after-treatment, there was some suffering from flatus, which was relieved by the use of the rectum tube. Laxatives were administered on the seventh day, followed by free evacuations on the eleventh. The first ligature came away on the fourteenth, and the second on the nineteenth day. Patient left for her home in Kentucky, on the twenty-second day. Ten months after the operation, Dr. Litzenberg learned, through Dr. Sham, of Kentucky, that the patient was in better health than ever before.

The tumor was a multilocular cyst, which weighed more than forty pounds, after the tappings mentioned. The secondary cysts were seven in number, and contained about three gallons of fluid, one gallon of which appeared to be pus.

* *Western Lancet* for March, 1856.

Case 42.—McArthur, T. W.,* of Wilmington, O. This operation was upon Miss S. M., on her sixteenth birthday. In April, 1857, she was of a size appropriate to the eighth month of pregnancy. At this time she had a violent attack of acute peritonitis, which seemed to be general. January 1, 1858, her sufferings had become very great, and her general health was failing.

The incision was six inches in length, and in the linea alba, commencing just above the umbilicus. Three sacs were tapped. The anterior and inferior portions of the tumor were readily separated by the hand. The lateral and superior surfaces were found so firmly adherent as to lead the operator to desist. The dressings were as usual. The patient was annoyed with vomiting for three days, but recovered from the effects of the operation, and three or four months afterward was in improved health.

Case 43.—McDowell, Ephraim, of Danville, Ky. The leading facts of this case, as shown by notes taken by Dr. Drake, both before and after the operation, are as follows: The patient, Mrs. Delano, was of the age of 38, without offspring, though eight years married; had always menstruated regularly, and was never sick till five years previous to her death. About December, 1825, a hard tumor was discovered in the right illeo-hypogastric region, which steadily increased in size, till it occupied the whole abdominal cavity, from the pubic symphysis to a point above the umbilicus, reaching outwardly as far as the costal cartilages. It was hard, irregular, and slightly movable.

The description of the operation, with the subsequent memoranda of Dr. Drake, we give, as found in Prof. Gross's History of Kentucky Surgery:

"From the difficulty, or rather impracticability, of moving the tumor about, Dr. McDowell naturally concluded that it must be extensively adherent. Believing, however, that extirpation was not impossible, and the lady anxious to be relieved, an operation was determined upon. An incision was accordingly made in the usual manner in the linea alba, and the tumor exposed by separating the tumor and omentum, by which it was enveloped. The patient, at this stage of the operation, became so rapidly and excessively debilitated, that apprehensions were entertained for her immediate safety. The tumor, as had been previously conjectured, was found to be ex-

* *Western Lancet*, 1859.

tensively and strongly adherent, and its extraction was pronounced impracticable. In about two weeks the wound was healed, without any material change in the general health.

"Dr. Drake visited Mrs. Delano on the 11th of March, 1827, about four months after the operation, and found her excessively emaciated, with swelling of the right leg, and all the symptoms of gradual exhaustion. The cicatrice, from the operation, existed in the linea alba, and was about two inches long. The whole abdomen was excessively protuberant, from the pubic symphysis to the ensiform cartilage. The liver very hard, and greatly enlarged, bulged out high between the short ribs and the umbilicus, over into the left side. Here, in contact with the ovarian tumor, in a kind of groove between them, the colon passed across, below the navel. At the center of the colon was a small, flattish tumor, which felt very hard, and could be moved along the bowel down into the sigmoid flexure. The ovarian tumor filled the right illiac region, and extended, in front, nearly to the umbilicus, crossing the linea alba, and being, seemingly, more prominent on the left than on the right side. It was fixed, during respiration, and appeared to be immovable. The liver, on the other hand, obeyed the motions of the diaphragm."

Her menses ceased about a month after the operation. Death occurred soon after Dr. Drake's visit. The body was not examined.

This is supposed to have been Dr. McDowell's tenth and last case, but the only one which he had in Ohio, of which I have been able to learn. The operation was performed about the first of January, 1827, about three years before Dr. McDowell's death, and seventeen years subsequent to his first operation.

Case 44.—Mussey, R. D.,* formerly Prof. of Surgery in the Ohio Medical College, but more recently Prof. of Surgery in the Miami Medical College, and now resident in Boston, Mass.

The patient was Mrs. Sly, aged 40; the mother of thirteen children. The incision was from the umbilicus to the pubes. On exposing the diseased mass, the transverse colon was found to cross in front of the tumor, and to be firmly adherent to it below the umbilicus. Such were the adhesions that the extirpation was abandoned. The cyst was tapped of four or five pints of turbid fluid, and a tent inserted. In a few days the discharge became purulent, and so continued for three weeks. The opening then closed, and at the end of a few weeks more, the patient had entirely recovered. At

* *American Journal Medical Sciences*, 1827.

the end of a year, she gave birth to her fourteenth child, at which time there was no sign whatever of a return of the disease.

This operation was performed in July, 1828, about ten years before Prof. Mussey became a resident of Ohio. It accordingly only belongs to our State, from having been performed by one, who, during the greater part of his professional life, was an Ohio surgeon.

Case 45.—MUSSEY, R. D.* The patient was a resident of Georgetown, O., was aged about 40 years, and was the mother of several children. At the time of the operation, she was as large as at the full term of utero-gestation. The abdomen was opened to the extent of three inches in the linea alba, and the sac emptied. Its edges were then stitched to the margins of the external wound by interrupted sutures. This was kept open, and the secretions thus discharged, by the use of a tent, for nearly a year. Under proper constitutional treatment, she recovered pretty good health. The tent, however, was finally dispensed with, the wound closed, the disease returned, and the patient died a little more than a year after the operation.

Case 46.—MUSSEY, R. D.† This operation was performed in 1850, the last one of the kind undertaken by Prof. Mussey.‡ The major incision was made, when the disease was found to be a tumor in the walls of the uterus. The extirpation was not completed. The patient died of exhaustion at the end of fourteen hours.†

Case 47.—MUSSEY, W. H.§ This gentleman reports a case. The patient was Mrs. S., aged 56, the mother of six children. A year previous to the operation, a tumor appeared in the left illiac region, which moved with the varying position of the patient. At the time of the operation (Feb. 8, 1858), the woman presented the appearance of a woman at the full term of utero-gestation. The patient was a confirmed dyspeptic, with a pulse of 100, a scanty flow of urine, and constant pain in the abdomen and back.

The extreme left portion of the abdomen was firm and dull on percussion, the region of the linea alba more elastic, while the right presented distinct fluctuation. The uterus was normal in size, while posterior and to the right, a tumor of the size of an egg was observable.

The incision was in the linea alba, and eighteen inches in length. The adhesions were slight. The tumor was freely incised, and thus

* Proceedings of Ohio State Medical Society for 1851.

† Atlee's Tables, given on the authority of a letter from Prof. M.

‡ Letter from Prof. Mussey.

§ *Cin. Lancet* for April, 1858.

reduced in size, so as to enable the operator to reach the pedicle, which proceeded from the left ovary. This consisted of a thin web, two inches in width. It was transfixed and ligated in two portions. A second cyst, of the capacity of two ounces, was found attached to the right ovary. A ligature was applied, and the cyst removed. Two ligatures were applied to arteries in the walls of the abdomen.

The sac with the contents weighed twenty-one pounds. The cyst was compound, consisting largely of an innumerable number of minute ones, giving the characters of a solid mass. The contents varied from a perfectly limpid serum to very stiff gelatin.

The external wound was closed with interrupted sutures three-fourths of an inch apart. A tent of lint was placed in the inferior extremity of the wound, and the ligatures brought out through the same opening. A web of cotton was placed over the abdomen and secured by a bandage. The patient being intolerant of the use of opium, the tincture of hyosciamus was given in thirty drop doses every two hours. Vomiting and diarrhea were troublesome for several days; the latter was finally restrained by the use of the nitrate of bismuth.

On the sixth day, there being suppuration and a bad odor from the wound, Peaslee's artificial serum was injected through a catheter. For a week this was repeated daily. During a second week it was used on every alternate day, after which water was substituted.

The ligatures came away on the 19th and 24th days. At the date of the report, one month after the operation, there was a fair prospect of recovery. This was thwarted, however, and she died on the forty-fifth day.*

Case 48.—Mussey, F. B.,† of Portsmouth, Ohio. This operation was performed Dec. 1, 1857, on Mrs. Sexton, aged 39 years. The patient was considered to be in excellent condition.

The incision through the abdominal walls was nine inches in length. No adhesions were encountered. "The pedicle was very short and broad, and so vascular as to require six or seven ligatures. A small tumor being discovered on the other ovary, it was also ligated and removed. The uterus was atrophied, being of less than half its normal size. Owing to the extreme shortness of the pedicle, the ligated stump was returned into the abdominal cavity, instead of

* *Cin. Lancet* for May, 1858. † Letter from the operator.

being secured external to the wound, as was the intention of the operator." The patient died on the thirty-seventh day.

The disease originated in the left ovary. The tumor, with contents, weighed twenty-five pounds, the emptied cysts, four and a half pounds. It consisted, apparently, of three unilocular cysts, having a common pedicle.

Case 49.—THOMPSON, ROBERT.* This operation was performed on the 9th day of November, 1847. The patient was Mrs. Hugh P. Lytle, of Etna, Licking county. It was a compound cyst, weighing twenty-nine and one-half pounds. The patient died at the end of twelve days.

Case 50.—WEBER, G. C. E.,† Prof. of Surgery in Cleveland Medical College. The patient was Mrs. ——, of Trumbull county, aged about 45 years. She had always enjoyed excellent health.

On opening the abdominal parieties, the tumor was found closely and firmly adherent to the surrounding parts, and, accordingly, the extirpation was at once abandoned. The cyst was tapped, and the wound dressed for adhesion. The patient had been tapped twice.

The patient recovered without serious symptoms.

Case 51.—WEBER.† The patient was Mrs. ——, of Cleveland. Adhesions of a formidable character were encountered, upon perceiving which, the cyst was opened by a free incision. Some thirty pints of serum were discharged. The patient died in the course of two or three days, from gangrenous imflammation of the sac.

ANALYSIS—SUMMARY—PRACTICAL DEDUCTIONS.

Number of Operations—Ovariotomy has been performed or attempted forty-two times, where patient and operator belonged to the State of Ohio; in eight cases, by Ohio surgeons, upon patients residing in other States; in one case upon a resident of Ohio, by a surgeon resident in an adjoining State, making a total of fifty-one cases embraced within the range of this report. Of these, twenty-five have hitherto been unrecorded, and several others only very imperfectly recorded.

Age of Patients.—This is given in twenty-five cases. The average is thirty-four years, and the extremes sixteen and fifty-six.

Relation of Cure to Age.—The average ages of the younger twelve is twenty-six and one-half years, of which eight were cured.

* *Ohio Statesman* of Nov. 10, 11, 12, and 22, 1847.

† Letters from Prof. Delamater. See Supplement.

The average ages of the older twelve is forty-three and two-thirds years; of these five only were cured. *Or, in the younger patients, the operation has been more successful than in the older, in the relation of eight to five.*

Effects of Tapping.—In nine cases tapping was performed from one to ten times in each. In six of these extirpation resulted in the cure of the disease. *Tapping, accordingly, does not seem to vitiate the prospect of success.*

Adhesions.—These are characterized in thirty-three cases. In twelve cases they are said to have been "slight" or absent. In nine of them, or three-fourths of the whole, the patient was cured.

In twenty-two cases they are called "strong," "firm," "extensive," etc. Of these only four, or less than one-fifth, are cured. *The prospect of cure is good in proportion to the indications of the absence of adhesion.*

Length of Incision.—Specified in twenty-nine cases. In two cases the minor incision of three inches was made. One of these was temporarily and the other permanently successful. In twenty-seven cases it was from six to twenty inches. *The peritoneum may be injured, and its cavity and the abdominal and pelvic viscera exposed, with a great degree of impunity.*

Separation of Ligatures.—The time is specified in reference to eighteen ligatures. The extremes are fourteen and thirty-nine days; the average twenty-four days.

Time at which Death Occurred from Operation.—Specified in twenty-two cases. In two cases it is one year; in three cases, from twenty to forty-five days; in five cases, from seven to seventeen days; in two cases, five and six; in six, on the third day; in three cases within two days; one dying on the table.

Cause of Death.—Specified in fourteen cases, viz: Acute Pneumonia, one; Gangrenous Inflammation of sac, two; Congestion of Brain, one; Inanition, one; Shock, one; Exhaustion, one; Hemorrhage, three; Peritonitis, four.

Extirpation Impracticable.—This was the fact in thirteen cases, or more than one-fourth of the whole, viz: in 3, 6, 29, 34, 39, 40, 42, 43, 44, 45, 46, 50 and 51. In seven of these cases, the unsuccessful attempt was evidently the cause of death, which occurred in every case within forty-five days; in six within seventeen days; in five cases within seven days.

Two (29. 40) recovered temporarily, each living about a year.

One (44) was permanently cured. Three others, viz, 42, 43 and 50, are supposed not to have been made better or worse.

Extirpation Practicable.—In thirty-seven cases, or nearly three-fourths of the whole, the extirpation was accomplished.

In sixteen of these cases, viz: 2, 5, 7, 11, 14, 15, 16, 17, 21, 26, 27, 28, 32, 47, 48 and 49, death was evidently caused by the operation.

Cures.—In twenty cases there was recovery, after extirpation, without relapse, so far as is known, and attended uniformly with restoration to a good state of health. To this number, as cured, forty-four is to be added, making, as cured, a total of twenty-one.

Size of Tumor.— This is specified in twenty-nine cases. The smallest two weigh five and seven pounds. The largest two, one hundred and six and one hundred and thirty-six. The largest two, followed by cure, weighed sixty pounds each. The average in twenty-nine cases specified is thirty-four and two-thirds pounds. The fourteen smaller ones average nineteen pounds each, and include most of the fibrous or solid. Of these, three only, or about one-fifth, are cured. The fifteen larger ones average forty-nine pounds, and consist mainly of the compound cystic. Of these, nine, or more than one-half, are cured. *Or, as a general fact, the extirpation of the larger ovarian tumors is more successful than that of the smaller, in the proportion of nearly three to one.*

Pathological Characters. — In forty-one cases, the pathological characters of the tumor are specified. Of these, thirty-two are cystic, seventeen compound, twelve simple, and two named as simply "cystic;" six are called solid or fibrous, two omental, two uterine, and one tubal fetation.

Of the seventeen compound cystic, eleven recovered; of the twelve simple cystic, only four; of the six solid or fibrous ovarian tumors, only one recovered. Of the other solid tumors, one, omental, was cured. Or, the compound cystic constitute more than two-fifths of the whole; the simple, about two-sevenths; the solid, one-seventh. And while eleven-sixteenths of the extirpations of compound cysts resulted in the cure of the disease, only one-third of the simple cystic, and one-sixth of the solid, resulted successfully. Furthermore, the two omental, the two uterine, and one tubal fetation, specified above, are supposed to have been diagnosed as solid ovarian tumors. Then, of eleven cases diagnosed as solid, only two are cured by extirpation, while in five-elevenths the diagnosis is inaccurate, the disease being

other than ovarian. There ought, accordingly, so far as this experience goes, to be no hesitancy in *rejecting the extirpation of solid tumors supposed to be ovarian, as an accredited surgical procedure;* especially as it is matter of common observation that they are usually of slow growth, and not necessarily incompatible with a comfortable, or even protracted existence.

Subsequent History of Successful Cases.—No relapses are known to have occurred. Sixteen patients, viz: 4, 9, 10, 12, 18, 19, 20, 22, 23, 24, 31, 33, 35, 36, 37 and 38, are known, from recent letters, to be still living and in good health; 8, 30, 41 and 44, are known to have been in good health after the operation, at periods varying from a few months to four years, but beyond that the result cannot now be given; 29 and 45 each survived about a year, but are reckoned as unsuccessful.

Admissibliity of Ovariotomy as an Accredited Operation.—The expectation of life, from the time of the discovery of the presence of ovarian disease, is assumed as five years.

The average duration of the disease at the time of operation, in sixteen cases given, is about three years, and this is assumed as the average of the fatal cases. This, deducted from five years, the average expectation of these patients, leaves two years as the average expectation at the time of the operation.

The aggregate of all the deaths caused by the operation, including one of Dr. Dunlap, designated recovered, also 29 and 45 which lived a year each, is twenty-six.

Each of these cases being entitled to two years of life, it follows that fifty-one cases of ovariotomy have sacrificed *fifty-two years* of human life. But, these were the latter years of these patients, and consequently years of great suffering.

The average ages of the patients which recovered is thirty-four years. The expectation of life at the age of thirty-four years, according to the Carlisle tables, is thirty-one years. Each of these patients, however, without operation, is entitled to two years, reducing the expectation growing out of a cure to twenty-nine years. Then, the operation having cured the disease in twenty-one cases, it follows that, by hazards, resulting in the loss of fifty-two years of life attended with great suffering, surgery has secured *six hundred and nine years* of good health, or nearly twelve to one.

In the above, five years is assumed as the average duration of life in all cases, whether the disease is cystic or solid. It may be claimed

that the average expectation, in case of solid tumors, is greater than this, making the average too small. To avoid even the appearance of sophistry, let these cases be left out of the account, and the argument may be thus stated:

Ovariotomy has been undertaken in Ohio, and by Ohio surgeons, in thirty-two cases, characterized as cystic tumor.

In eleven of these cases, the average duration of the disease is three years, and this is assumed as the average duration of the disease in all the cystic cases. This, deducted from five years, the average duration of life in connection with cystic disease, leaves two years as the average expectation at the time of the operation.

The operation is admitted as the cause of death in fourteen cases of cystic disease, viz: 2, 7, 17, 27, 28, 32, 39, 42, 44, 45, 47, 48, 49, and 29, which latter survived one year. The consequent loss of life admitted to have resulted from thirty-two cases of ovariotomy for cystic disease, is twenty-seven years. This however is invalid life.

The operation in these thirty-one cases of cystic disease, resulted in the permanent cure of the patient in sixteen cases, viz: 1, 4, 9, 20, 22, 23, 24, 25, 30, 31, 33, 35, 36, 37, 38, and 41. The average ages of these patients, in nine cases, is thirty-two years, and this is assumed as the average of the whole. The expectation of human life, at the age of thirty-two, is thirty-three years.

Each of these patients, without operation, is entitled to two years, reducing the expectation, growing out of a cure, to thirty-one years.

Hence, the operation having cured the disease in sixteen cases, it follows that, by risks in thirty-one cases, resulting in the aggregate loss of *twenty-seven years* of invalid life, surgery has saved to society *four hundred and ninety-six years* of good health, or nearly fifteen to one.

Hence, as the conservator of the life and health of his patients, *the surgeon, ordinarily, has no right, till a less hazardous or more successful treatment is presented, to withhold the operation when the diagnosis of cystic disease is clear, if, after a candid and full statement of its hazards, the patient is desirous to assume them.*

This practical deduction applies with especial force to the proliferous cyst, because of its rapid growth, the success which has attended its extirpation, and its not admitting of either palliation or cure by other means.

History.—The honor of performing the first operation belonging to Ohio, is denied her own surgeons, and belongs to Dr. Ephraim

McDowell, of Danville, Kentucky, the great inventor and pioneer of Ovariotomy. The case was that of Mrs. Delano, of Chillicothe; the first daughter of Ohio to assume its terrific hazards, and whose heroism, it is much to be regretted, was not rewarded by success. It is not quite certain whether the operation was performed at her residence, or that of her surgeon. Mrs. Delano visited Danville, for the purpose of consulting Dr. McDowell, about the last of October, 1826. Prof. Drake visited her, and took notes of her case, on the 11th of March, 1827, about four months and a half after the operation. It is inferred that Dr. McDowell operated at Danville, that she returned to her residence afterward, and that Prof. Drake visited her there. This was the last case in which Ovariotomy was undertaken by the great Kentuckian, and supposed to be the only case of ovarian disease, belonging to Ohio, ever operated on, except by her own surgeons.

The next case, belonging in any wise to Ohio, was that of Prof. Mussey, in July, 1828; though it is supposed that the patient did not belong to the commonwealth, and it is known that the operator did not, till ten years subsequently. The date of Prof. M.'s second case has not been ascertained, though quite probably it was the first upon our own soil by one of our own surgeons.

Dr. J. D. Bowles of Harrison, Hamilton county, was the first to succeed, both in the extirpation and in curing his patient. This was Aug. 5, 1844. Dr. P. J. Buckner next operated successfully on Mrs. Lawrence, April 14, 1848. Between this time and June, 1851, Drs. Buckner, Dunlap, and Farrell each operated twice; and Drs. Mussey, Crume, and Thompson, once.

The very brilliant and successful operations of Dr. Buckner were presented to the Ohio State Medical Society, in 1850 and 1851, in connection with a most zealous and enthusiastic advocacy of the practice. Since that time, and no doubt, in a great degree, as the result of the impetus thus given it, the operation has been performed by 16 different surgeons, in 36 cases. Eleven surgeons, from first to last, have operated only a single time each.

SUPPLEMENT.—The following communications, as giving the views of their venerable author, are too valuable to be lost. They are inserted in full, and speak for themselves.

LETTERS FROM PROF. DELAMATER.

CLEVELAND, June 5th, 1859.

Prof. J. W. HAMILTON:

Dr. Sir—I hope that the weight of years upon me, the cares of a distressed family, and the pressing duties of the medical profession, will be some apology for my delay in replying to your printed letter of 11th April.

But late as it is, I still feel disposed to offer a few hasty remarks, with a few observations bearing upon the question of Curative Measures in the management of ovarian dropsy.

And first, I hardly need say that I have no confidence in the efficacy of any medicinal means for promoting absorption of dropsical liquid in these cases.

Having kept no notes of my cases, I cannot state definitely the number of cases which I have seen—I deem it safe, however, to state it at 150 to 200 cases.

Almost all of these cases were treated with the usual remedies for promoting absorption, previously as well as subsequently to tapping; but in no single instance have I obtained unequivocal evidence of the efficacy of such measures; on the contrary, when these means have been prescribed in full doses, more or less injury to the general health was the more obvious effect.

I have known one or two instances in which the disease appeared to be cured by bursting of the cyst, and absorption of the liquid contents from the peritoneal sac, into which it became effused, from the ruptured cyst.

I have also seen one or two cases which appeared to be cured by tapping the cyst; but the history of the attendant circumstances was such as to suggest the probability that the opening in the cyst had remained patent, so as to permit the ready transmission of the liquid contents of the cyst into the peritoneal sac, from whence it was removed by absorption, thus removing the tension of the sac and allowing it to contract upon itself until its cavity became obliterated. And I can entertain but little doubt, that this is the true explanation

of the reported efficacy of iodine in a few cases, administered after tapping.

The following case may serve to illustrate the cure by transmission of the cystic liquid, through a patent opening in the cyst into the abdominal cavity, where it may lie amenable to absorption.

Many years since I was consulted, in a case of unilocular dropsy of the ovarium, by a lady from Wayne county, Ohio. The lady was advised simply to take all care of her general health, and if need be, to have the dropsical accumulation abstracted by tapping. But delaying the tapping as long as possible from dread of the operation, the cyst ruptured, and the contents were precipitated into the abdominal cavity.

The constitutional irritation was severe and alarming, but she rallied, and slowly recovered. But in course of 2 or 3 years the tumor returned, and a second rupture took place, which proved fatal.

The operation for cure of ovarian dropsy by extirpation, has been frequently offered me, sometimes with pressing solicitation. But upon most careful consideration, I have almost uniformly regarded it a duty to decline its performance; advising rather a simply palliative treatment, aided by tapping, as circumstances might require in its later stages. But a few years since, so many cases of success from extirpation were pressed upon public attention, that I was induced to believe that I might have been too rigorously opposed to the measure.

About that time a lady came from Trumbull county to consult me, who had already been twice tapped for ovarian dropsy, and was now again greatly oppressed by re-accumulation. She desired that the most effective measures might be adopted, as she said that she had come to be killed or cured; was about 45 years of age; had always enjoyed perfect general health, and was self-possessed and submissive in her moral frame of mind. Desiring a little time for reflection upon what I ought to do, as she was suffering a good deal from the distension, I tapped the tumor, abstracting 24 to 28 pints of fluid.

In course of the ensuing 4 weeks the tumor had fully returned, and it had become apparent, withal, that her strength and flesh were beginning to fail.

And in the circumstances, perceiving no indications, either in the history of her case or in her present symptoms, of existence of undue adhesions, I requested a couple of surgical friends to proceed to the extirpation of the tumor, which they did accordingly.

On opening the abdominal parieties, however, the tumor was found closely and firmly adherent in every part to the circumjacent structures and organs.

Nothing remained therefore to be done in this direction, but to draw off the dropsical effusion and to dress up the wound for adhesion.

The lady recovered readily without bad symptoms.

At the expiration of another 4 weeks, the dropsy had fully returned upon us, and the lady demanded some means more effective than mere tapping.

We then again abstracted the dropsical liquid, and injected the sac with a liquid consisting of 3 parts water to 1 part of compound tincture of iodine.

The lady suffered but little from this operation, and the return of the dropsical accumulation was delayed to 6 weeks instead of 4 weeks, as previously. Encouraged, therefore, we repeated the previous measures.

In course of 2 or 3 days, however, the patient complained most bitterly of great swelling and tension, and pain of the abdomen.

The swelling was evidently tympanitic, and a warm cathartic with carminatives was prescribed; the cathartic, however, brought no relief, and then it was perceived that the gaseous accumulation was developed within the dropsical cyst. A free incision through the walls of both abdomen and dropsical cyst was obviously needed, and made accordingly, the wound being so dressed as to prevent reclosure.

The relief from suffering by this operation was immediate. But in course of a few days a suppurative process was established within the sac, which poured forth, accordingly, a fetid, sero-purulent liquid in large quantities.

The cyst was washed out daily—sometimes with warm water—sometimes with chamomile tea—sometimes with solution of some of the chlorides—and sometimes with very dilute solution of iodine. Under this treatment, the discharge was gradually reduced to one-third part of its original amount.

But, unfortunately, the patient suffered constantly from fever, loss of appetite, loss of sleep, and loss of strength; and died in six to eight weeks after the free opening of the cyst.

In a second case, where I consented to an operation for extirpating an ovarian dropsical tumor, which was attempted accordingly, similar adhesions were encountered to those described in the case above-named. In this case, the operating surgeon, instead of making

good a retreat, as in the other case, proceeded to open freely, by incision, the dropsical cyst also. This lady sank fatally, in course of two or three days, probably from general inflammation of the entire sac, which was of size to contain some thirty pints of liquid.

The late Prof. Ackley had a case, some three or four years since, in which he made an incision through the abdominal parieties into the sac, through which he introduced a tube, which was confined in place for the double purpose of giving vent to all matters poured into, and also to induce suppuration and granulation of, the sac. This case also terminated fatally, though not very suddenly.

Usually, Prof. Ackley was accustomed to dissuade patients from submitting to any operative procedures in these cases, beyond that of mere tapping as a palliative, in the later stages of the affection.

But fame reports, that, some two or three years ago, a lady came up to him from Buffalo, N. Y., for the express purpose of obtaining an operation for the removal of an ovarian dropsical tumor; the Buffalo surgeons having declined to operate.

The lady was accordingly placed upon the operating table, and a free incision made through the abdominal parieties, so as to make a large exposure of the tumor. At this moment the lady was seized with a fit of coughing, by which the tumor was unexpectedly thrust forth from the abdomen, so as to swing pendent by its stem, not much larger than a finger. A ligature was put round the stem, and the tumor readily removed by division of the stem. The abdominal wound being dressed for cohesion of its edges, the patient recovered readily, without a single untoward symptom.

The very fortunate issue of the case just named, proved, at once, a spur to the surgeon, and an encouragement to patients afflicted with ovarian dropsy to avail themselves of an operation at once so simple and effectual; and, consequently, as it is rather secretly whispered, the experiment was repeated in several other cases, all of which, however, terminated fatally.

In this connection, I believe it due to mention a case of ovarian dropsy operated upon by Prof. Ackley about four years since.

The lady came from a distant part of the country; and the operation, at the moment, seemed to promise success. She was considerably prostrated by the shock of the operation; but the next day she had rallied, and gave fair promise of recovery—and this promising state of the symptoms continued for about three days, when she sank suddenly, and expired.

It was well ascertained, that this unhappy event was caused by abdominal hemorrhage, although no formal post-mortem investigation of the case was had. It was Prof. Ackley's, as well as my own, opinion, that the fatal hemorrhage, in this case, arose from a peculiarity adopted in the mode of dressing the wound after the operation. The Doctor conceived the idea that if he could place the stump of the ovarian pedicle in such position that the slough would fall outside of the peritoneal cavity, he should avoid one serious source of after-accidents. He, therefore, in dressing the wound, drew the stump of the pedicle through the internal portion of the wound, fixing it in that position by fixing the ligature, by which it was surrounded, in a state of tension sufficient to hold the stump in that position. But this tension of the ligature, doubtless, caused so rapid an ulceration, through the stump of the pedicle and artery, as to precede nature's processes for effecting permanent closure of the artery.

And now, in conclusion, I owe it to say, that, in regard to the question of extirpation of ovarian tumors, I find myself driven to my old post of conservatism—that is to say, I doubt whether such an operation is warrantable:

1. Because that in most of these cases, as they are at first presented to the Profession, there is fair promise that, by avoiding irritating medication and grave surgical operations, and simply palliating troublesome symptoms, and, finally, by tappings in the later stages, a patient may be expected to survive from one to six years; and the greater portion of that period in a state of comparative activity and comfort.

2. Because, while fully aware of the failure, to a great extent, of operations for extirpation of these tumors, we have no means of ascertaining, down to this time, how fallible; since that, in private practice, while a successful case is highly and extensively lauded, the failures are most carefully concealed; insomuch that there is reason to doubt whether 20 per cent. of these operations prove successful. And then, again, it is matter of weighty consideration with me, that, where the operation proves a failure, it is *not a failure merely:* the operation either succeeds or kills outright; insomuch that patients, who might have survived months or even years, perish from the operation either immediately or in course of a few days.

Comparisons of the reported results of this operation have been set beside the ratio of success of some other great operations of surgery, the propriety of which is regarded as well established.

But I object to these comparisons as fallacious—the circumstances

not being similar. Take, for example, the question of amputation, in spreading traumatic gangrene of the extremities. Here we may be assured that death is certain and imminent without amputation; while it is possible that life may be saved by amputation. In this case there is, in truth, no *hazard* incurred—and just so it is in the case of many of the great operations in surgery. But in ovarian extirpation it is not the disease, but the operation, that endangers the immediate loss of life.

Prof. Mussey, who has now for several years spent a condsiderable portion of his time in Boston, told me, some months since, that, although the operation had been many times performed in Boston, he was unable to learn that it had ever been done there with success; and, of course, most of those patients operated on were killed outright.

Pardon, I pray you, the tardiness of this communication, and believe me truly, Your friend and obedient servant,

JOHN DELAMATER.

CLEVELAND, June 7th, 1859.

Prof. J. W. HAMILTON:

Dear Sir—It was my purpose to have offered some passing suggestions, in regard to non-dropsical ovarian tumors, which, of course, do not admit of palliation by tapping—such, for example, as medullary and scirrhous cancer, tubercular affection, and fibrous tumor of the ovarium. Two remarks obviously occur, in respect of medullary and scirrhous cancer located in this organ: 1st. That its progress may be slow; and 2d. That, whether the progress be slow or rapid, very little permanent benefit can be expected to result from extirpation, however fortunate the immediate issue may be. In regard to tubercular disease of the ovarium, it is to be considered that the course of the disease is very gradual; and, also, that there is a tendency, ultimately, to softening of the tumor, so as to afford relief by spontaneous or artificial opening, either externally, or into some of the adjacent hollow organs. And, finally, it is to be remarked, in regard to fibrous tumor, that its growth is usually slow; and, also, that the growth may frequently be permanently arrested by administration of the preparations of iodine. I am acquainted with a lady who has been able to keep a large fibrous tumor of this kind wholly at bay for the last six years, by occasional and pretty free use of those

medicines. In still other less fortunate cases of this description, the growth of the tumor was still so slow that the patient was living, and in pretty comfortable health, at the expiration of fifteen, twenty, and even twenty-five years after I was first consulted; and, of course, no sensible surgeon, as I imagine, would think of subjecting a patient to the imminent perils of an operation for removal of any of these classes of tumors — at least, in ordinary circumstances.

I have said, in my previous letter, that patients affected with ovarian dropsy usually survive from one to six years from the period when the surgeon is first consulted in regard to them. I ought to add, I believe, that there is, in most of these cases, evidence of the disease having commenced long before resort is had to a surgeon — and, moreover, that I have seen a few cases in which the disease remained for a long time nearly stationary; insomuch that life was prolonged, without any other surgical operation than mere tapping, to a period much beyond six years, reckoning from the ascertained or presumed commencement of the disease.

And, finally, I beg to say, that I have not written with the purpose of having what I have written laid before the Society as a separate report, but merely as offering some hasty hints for consideration for whoever may be charged with the duty of making such a report — and then, again, I wish to say, that what I have stated in regard to the failures of extirpation, as the operation has been done in the city of Boston, it might be necessary for me to institute further inquiry before putting it forth positively in print; and the same remark is applicable to what I have said in regard to the late Prof. Ackley's later operations, in this direction.

Regretting much that I am unable to meet with you, I remain very truly, Your friend and obedient servant,

JOHN DELAMATER.

[J.]

DRUNKENNESS, ITS NATURE AND CURE;

OR,

ASYLUMS FOR INEBRIATES.

BY M. B. WRIGHT, M. D.

Members of the Ohio State Medical Society:

An authorized committee of your body has kindly invited me to address you on this occasion. In the note of invitation, a wish was expressed that I should select some subject appropriate to an "unprofessional as well as professional ear." At the moment, there seemed to be no one subject in which the mass of the people had a deeper interest, or upon which they should feel more keenly, than "Asylums for Inebriates." As these asylums are designed, not for the punishment nor for the safe-keeping, but for the *cure* of the inebriate, we shall embrace in the discussion, indeed, as its foundation, *the nature of drunkenness.* Thus, you will see, has been opened an extended field of thought, too extended for anything more, at this time, than partial examination.

To the relief of individual suffering, and the promotion of public good, are the best energies of the physician directed. His plans of action, however, are often defeated, and his hopes withered for want of encouragement and sympathy. And no association of men need look for any great, durable achievement, unless sustained by general sentiment and interest. The importance of establishing asylums in our State for the benefit of those whose reason had been impaired, and of those to whom the light of earth and the beauties of nature had been utter darkness, had been forcibly advocated by medical men; yet these asylums stand as speaking monuments of the philanthropy and generosity of the people.

As a Society, with our minds enlightened and expanded by the

demands of the age, and with our energies vigorously directed, we can give a true direction to public sentiment, and bring to completion that which, otherwise, might not have been undertaken. While I am now speaking, I feel that the sympathies and ready coöperation of the people are subject to our call; and my strongest hope is, that I may present drunkenness in that true light its importance demands.

It has been supposed by men in general, that drunkenness, in all its aspects, is under the control of the will, and that its results are those of voluntary debasement. Taking a more philosophical view, however, some have associated it with disease of both body and mind, and have been directing their energies to appropriate sources of cure. All means heretofore employed to arrest drunkenness have failed; and the inference is, they were not adapted to the malady. Treated as an outcast, the unfortunate victim has become rebellious, and, perhaps, the passion leading him to destruction has been strengthened, just as chains and stripes, heretofore used, rendered the condition of the insane more deplorable.

To administer a remedy in every-day practice with any hope of success, we must ascertain the seat and nature of disease. And to impress upon the mind the importance of any plan of treatment for the cure of drunkenness, it may be proper to inquire what it is.

In the examination of machinery, we admire its polish, its nice adjustments, and its skillfully-balanced power. Within a given time, and with entire safety to itself, its wheels may perform a given number of revolutions. Accelerated beyond this, the whole structure begins to shake; joints are opened, screws are loosened, bolts are broken, and alarming injury speedily follows.

As a general proposition, we admit the intricate structure of the human body, and that it must be, beyond all cavil, the work of Omnipotence; yet, with all its complications, how careless are we in our estimate of its harmonious action and powers of endurance. Blood, air and food are natural stimuli for keeping the body in healthful action, and artificial aids are not necessary to secure an even balance between waste and repair. These aids are only useful when vitality, under the influence of some extraneous cause, has become greatly depressed. The system generates within itself a sufficient amount of heat for its own preservation, and requires no outside addition, except to counterbalance some sudden or unnatural loss. For its healthful exercise, then, the body requires no other exciting agents than those which nature, under the direction of Infinite Wisdom,

supplies. All other things are artificial, useless, destructive, and scarcely deserve to be used, even as illustrations of the ingenuity of man.

It is true, the body has great powers of adaptation, and may not be destroyed by long-continued morbid impressions. Still, danger is always near, ready, and more than willing, to act upon circumstances. A cancer has been a long time taking root in the cheek, without despoiling it of its beauty, but, by and by, those soft tints begin to fade — the texture gives way, and a painful, hideous deformity is presented. It is equally true that the system may not suffer from a given amount of alcoholic potation, but, repeat it, increase it, and the whole man becomes maddened by an uncontrollable demand for more—his character being now fully established as a drunkard.

Habit and its effects begin at a very early age, and may be traced onward threescore years and ten. The infant receives its morning ablutions, in the arms of the nurse it takes its daily promenade, and at regular periods receives from its fond mother the pure substance intended by nature for its nourishment. Deprive it of either of these, and it becomes restless and irritable. Give it food to which it has not been accustomed, and it becomes uneasy, perhaps sick. Soon the stomach digests this food, and appropriates it to its own uses more readily than any other kind.

The chewer and smoker and snuffer are under the dominion of *habit*. There is nothing *natural* in the use of tobacco. It contains nothing that could charm the unperverted senses, either in odor or taste. On the contrary, it is offensive and nauseous. An individual commences its use, as an imitator, from a desire to engage in a manly accomplishment. At first he sickens, but having learned the advantages of repetition, tries it again. He sickens, and tries it again, until the system is goaded into a recognition of its more pleasant effects as a *habit*. Breakfast is enjoyed in anticipation of a cigar afterward. Has too much dinner become oppressive? the cigar brings relief. Puffing at leisure, after tea, when the business and perplexities of the day are over, gives a miniature view of Elysium. And then, during all intervals, it is the solace of mental trouble and bodily pain. Once established as a source of courage and contentment, nothing is done promptly or correctly without it. And it is easy to anticipate the next step, should the bottle be near.

Is a man a frequent visitor at any one place in which liquors are sold? he finds it almost impossible to proceed on his way until his ap-

petite shall have been gratified. During a conversation with one of the most distinguished lawyers and political men in Ohio, he confessed that he was descending into the dark vale, rapidly and prematurely, by his own acts. "I will not say that those acts are voluntary," said he, "for they are beyond control. Take what street I may, from my office to my dwelling, I must pass some place in which brandy is sold. It has been my habit for many years to stop and drink at some one of these places, and as I approach them my thirst becomes as fierce and ungovernable as a famished tiger in sight of blood. I have said *thirst* but the term is unmeaning when used to express the feelings, the maddened impulses, by which an intemperate man is driven to the bottle."

The indulgence of strange and revolting appetites, will illustrate the control of the stomach or brain, in a morbid state, over the entire individual. One has eaten the soap, bar after bar, of the washerwoman, and with great relish. Another has devoured candles greedily. Another has taken from the grease-keg putrid meat, and eaten it in preference to the most savory dish of the epicure. Young ladies at school eat clay, coal, chalk, slate pencils, and plaster from the walls.

From a continued use of narcotic stimulants, the nervous system, controlling not only the functions of the stomach but other organs, becomes morbid. It is fascinated, as it were, by its own destroyer, and is willing to go whither it may lead. Is it the delicious taste of whiskey that lures the drunkard to a repetition of his draught? No. With many, both odor and taste are offensive. Watch the inebriate in his movements. The glass is in his hand. He has drank and drank, until his stomach is full to distention. He raises the poison to his lips again and again, each time nausea evincing a surfeit. He pauses, his face becoming flushed, and his eyes fixed. He struggles, not to resist, but to throw himself into the merciless grasp of the tempter. What induced this but an ungovernable habit, an insatiable desire for more? The stomach became turbulent, and evinced a determination to resist, but it was subdued by the master-passion, the desire for drink.

Man is a creature of imitation, and is governed far more by the force of example than precept. The moralist is ready to admit this, and yet how often does he reflect, that bad habits have had a beginning in one by observing them in another. They spread like a contagion. May I not illustrate without giving offense?

A minister ascends the pulpit, having reluctantly and impatiently

thrown away the last stump of his cigar. The odor adheres to him more closely than incense from the altar on which he kneels. He masticates his quid eagerly, that he may deprive it of its juice before he rises to read his text. He exhorts his congregation earnestly and eloquently to control their passions, to restrain their excesses, and to cultivate to refinement their better natures. Then he admits, in the social circle, there is bliss in the use of his narcotic, and that his desire to partake of it is irresistible. Which is capable of exercising most control over the drunkard, his ministerial advice, or his individual example?

How many infants and children, think you, there are in this city almost drunkards? Infants and children! Yes; those, too, who are as dear to you as your own lives. Consider, for a moment, the facts. You invade the sanctity of your home fireside by the use of a poison. The smoke of your cigar fills your parlor, your bed-room, your nursery, and the lungs of your children. These children become narcotized, and their nervous systems forced into a state of disease, which, sooner or later, will demand a counteracting stimulus. Thus, in the bud of life, when sweet innocence demands assiduous care and protection, are we nourishing a worm that will eat into its core. Thus are we sowing, in the very blood of our children, the germs of intemperance.

It will not be denied, that the nature of the parent, whether original or induced, is transmitted to the child. Is the parent a consumptive? the child may become one also. Is the parent insane? a fearful fate portends the child. Is the parent a drunkard? the feebleness, the waywardness, the disease which his habits have implanted, may be all transmitted to the child. Oh, what a fearful risk, what a load of responsibility, does that parent assume who makes of himself a drunkard! A drunkard by inheritance! What a terrible reflection.

It is true, that the parents of many dissipated young men have been prominent examples of abstemiousness, and sound practical virtue. Early indulgence, an unfortunate selection of associates, and the usual kindred causes, counterbalance the best parental teaching. Yet, daily and extended observation has led us into the belief that the children of those who use tobacco to excess, and those who drink spirits to habitual drunkenness, or those who keep themselves under the almost constant influence of morphine, opium, or like narcotics, are unsteady in their purposes, impulsive in their undertakings, and

are easily led into ruinous excesses. And the question may be asked, with some show of reason, how long will it take, with the present and increasing rate of progress, to make this a nation of drunkards?

It is claimed, that if drunkenness were hereditary, the passion for strong drink should be developed in early as well as mature life. It is occasionally so—not always, for the plain reason that the laws of transmission do not render it necessary. The foundation of disease, as the virus of hydrophobia, has remained in the system unperceived many years. A taint of scrofula and consumption has passed from parent to child; yet, by careful living, avoiding unhealthful exposure, and by sustaining, in every possible way, the tone of the system, it has been prevented from assuming an active form during a long period, and, it may be, a whole life. A son, in whose veins runs the blood of an intemperate father, requires to be nurtured with unusual care; and, mingling in busy life, he must studiously avoid the temptations of the bottle, or his fall will be as certain as his birth.

The important bearing which this has upon the marriage relation should be duly considered. A female, not unfrequently, has a long and deep struggle between love and duty. Her heart has yielded its tenderness to the influences of mental culture, polished address, and generous sympathy, while her reason has thrown over all these commendable qualities the pall of degradation and want. There is one thing more, however, demanding her anxious and earnest consideration. She must be prepared to ask herself the question—Besides my own immediate suffering, will I not be held responsible for the misery entailed on an innocent and helpless offspring?

One may ask, Do you call *drinking*, mere *drinking*, a disease? Certainly not. The disease consists, essentially, of an unconquerable thirst for narcotic stimulants, having for its foundation change of structure or function. Like every other disease, drunkenness has its own peculiar symptoms. Smallpox and measles are classed among eruptive diseases, yet they are distinct in appearance, in progress, in effects. Convulsion is a term clearly expressive of the external symptoms of disease, yet it conveys no satisfactory idea of the point from which these symptoms radiated. To know when a man is drunk, it is not necessary to know what state of the stomach or brain or nervous system excites the desire to be drunk. In other words, the fact that we may not be able to describe the true morbid state of the stomach, impelling to drunkenness, or to the use of liquor,

to a greater or less extent, is no argument against the existence of a morbid state.

It may be said further, that we know nothing of that fatal scourge, cholera, except by its symptoms, dissections of thousands upon thousands of bodies having revealed nothing satisfactory respecting its pathology. From the mind of the maniac, every ray of calm thought may have been excluded during a long and dreary life, and still the brain may have been carefully examined after death, without anything unnatural having been visible. Strychnine, in very large doses, leaves no other trace of its action than death.

At times, however, the stomach of the drunkard has been inflamed, softened, and thickened; his brain has been disorganized, its blood vessels have been attenuated, and its cavities filled with serum.

The inquiry may be presented here, Is the drinking the *cause* or the *effect* of morbid changes? We are inclined to think they are mutually cause and effect. Take a man whose nervous system is in a condition demanding narcotic stimulants, and who obeys this demand. The thirst and the indulgence follow each other in rapid succession. The stomach, which has seemingly maintained the integrity of its functions, becomes sensitive to pressure; it digests food imperfectly, and frequently ejects its contents. Still the gnawing desire for drink is in no way alleviated. Time rolls on, and epilepsy prostrates the man in the dust, with intellect enfeebled, and with his limbs less strong and elastic. The pitiable, yet unpitied victim, indulges in still greater excess. He meets a companion on the highway, to whom, in a spirit of kindness, he extends his bottle. They drink, wishing each other good luck and good health. They quarrel, and, in a scuffle, the owner of the bottle falls. He is taken to his home; he lies on his bed, and in a few hours dies. His brain is examined, and found to be unnatural in structure; an artery has been ruptured, and a large clot of blood is compressing the brain.

This is no fancy sketch. The disease in this man's brain increased in proportion to the amount he drank, and the demand for drink was regulated by the increase of disease. The cause and the effect, alternated with each other, they strengthened each other in their progress, and, without coercion, they would not be separated.

In 1845 I delivered an address on Drunkenness and Insanity, in which I endeavored to draw the features of each, and to exhibit their close resemblance. They were placed on parallel lines, and no change of climate, or variableness of temperature—no modification of cir-

cumstances or ingenuity of man have changed their relations. Although on this occasion we shall pursue another train of reflections, we may pause for a moment, and present a few facts, bearing on the above discussion, for your earnest consideration.

An individual who has occupied an enviable position in all the relations of life, has become unusually loquacious or taciturn, pleasant or morose. He is insulting in his language and threatening in his manner. Claiming to be a king, he commands unqualified submission—a Crœsus, and his money is foolishly squandered. Between friend and enemy he makes no distinction, or if he should discriminate, he chooses the former for his victim. An expression of calm intelligence has given place to a wild, unmeaning stare. His apparel no longer betokens order and decency, for he is bare at the elbows and knees—one foot is shoeless, his hair is uncombed and matted, and his face is covered with dirt. Now, tell me, is this man drunk or insane, taking your own views of these states? Ask not, has he been drinking or suffering misfortune? Inquire not into the cause, but tell me, is he drunk or insane?

You may not give an answer, perhaps, until it has been determined how long the manifestations have been continued. This cannot be taken as a satisfactory criterion. The minds of the drunkard and insane may continue in their weakness and wanderings an indefinite period, or they may be controlled alike by the laws of periodicity. Men become drunk and sober at stated times—in like manner others become insane.

Why an individual should have a clear, discriminating, logical intellect one month, and the next be clouded, unsettled, fanciful and wild, is past our comprehension. Nor can we touch that secret spring which makes a man, alternately, a lazy drunkard and an industrious penitent. Still, facts sustaining these points, are innumerable and beyond dispute.

There is even a more close connection between drunkenness and insanity. There have been many well authenticated cases in which insanity became fully developed before the slightest desire for alcoholic drinks was felt, after which it grew fearfully violent. The wandering of intellect, and the inordinate thirst, continued and terminated together.

Men differ in their physical, and why not in their mental constitution? There are some who are cheerful, calculating and energetic, while on the highway of prosperity, while, in adversity, they are des-

ponding and inactive. Successful interprises as well as great reverses have been causes of insanity. In like manner they have elevated or depressed nervous energy, resulting in drinking and drunkenness.

Aside from a professional view of this subject, let us take some of our daily observations and apply them to the formation of our opinions.

A young man is before us who has acquired, by industry and correct habits, the confidence of his employers, and the kind consideration of all who know him. His social qualities have gathered around him boon companions, and with them he is indulging in the so-called pleasures of the bottle. Drinking is fast becoming a habit. To the astonishment and regret of all he has been drunk. He has become sober, has apologized, expressed deep mortification, and has solemnly declared that the cup of ills shall never again pollute his lips. For a time he adheres to his pledges, and his conduct is exemplary. Suddenly he is observed to be restless and irritable, remembers his obligations, is excited by fears, and at every hazard he drinks, and is unconscious. Again he returns to sobriety, and with the threat that a loss of place shall follow the next transgression, he becomes sad, and without one ray of hope to enliven the dark and dreary future. Soon he loses all self-control, he is rejected by his employers, and has no fixed abode. The propensity to drink exhausts itself, as it were, as in other diseases, and penitence soon follows. Kind remembrances come to his rescue, and he is reinstated. It were needless to follow him further, for alas! you have, in your thoughts, thrown a dark mantle over his destiny. Was that a *willing* sacrifice, or was it impelled by disease?

Direct your thoughts to one whose kindness, amiability, and correctness in all things have been proverbial. No husband ever had a more just and tender appreciation of a good wife, or loved her with more devotion. No father ever bestowed more care over his children, or made more willing sacrifices for their benefit. No friend ever found him unfaithful or unready.

Gradually and stealthily a master-passion seized and controlled his better nature. He felt its power, and stood aghast as if a huge serpent had coiled itself around his limbs. Conscious of his true situation, he struggled to release himself, but he became overpowered and sank exhausted. His will was inactive, almost destroyed—he was a drunkard.

During the long months and years, which to him were made up alternately of effort and dispair, he had pictured before him the unhappiness and ruin of his family, the injury he was inflicting on the religion he professed, and of which he had been an eloquent advocate, and his own frightful fall from the pulpit to the gutter; and yet, he could not resist. Was he an object of scorn or commiseration? Was not an insatiable disease weakening a finely cultivated nature, and fastening upon it a corroding and fatal passion?

It is always an unpleasant task to associate woman with anything that has stamped upon it a stain of degeneracy. We cherish such an admiration of her whole character, that it requires something more than our own reasoning to satisfy us that, by *her* original transgression, this has become a world of sin. She *knows* her power over man, and in what that power consists. Take her in all her varied relations to society, and there is not one in which she may not exert an influence, until she falls into the pit of the inebriate. Then she seems no longer a woman. Even *pity* comes to her grudgingly.

She knows all this, and knowing, could she voluntarily fall, having no other inducement than to fall? Will she abandon friends, and all the captivations of refined society—will she sever the ties of wife, of parent, of home, to partake of a worse than upas poison? It cannot be, it cannot be! There is a something within which has power to change her whole nature, and over which she has no control. She is an infant in the arms of a giant. She has a disease creating more dismay and spreading more havoc than the leprosy. Will it yield to the finger of scorn? Will coldness and neglect change its character? Will tears of affection wash it away? They never have, and they never will. Then let us look to some other source as a means of cure.

It may be asked, to what form of insanity is drunkenness allied? To that denominated *monomania*, which signifies derangement on some one subject, the reasoning faculties being good on every thing else; or some one impulse leading to injury. An individual thus affected, may be suddenly prompted to raise his hand and commit murder, from some imaginary cause, or without cause, unless mere desire may be considered cause. The millionaire fancies that he is dependent, and suddenly changes his liberality for the mean tricks of the miser. Has he been humble and unassuming? he is speedily elevated in his feelings to the dignity and power of a sovereign. The drunkard drinks and prostrates himself in the midst of desolation and

ruin, from an ungovernable impulse, from a power which seems to control his whole being.

This form of insanity, however, must be, like every other, associated with change of structure, for we know nothing of mind only as it flows through material channels. The brain is as necessary for its development as is the instrument for the production of music. Without a proper adjustment of its fibres, thoughts are given forth discordantly, and are no longer under the control of the will. Therefore, when we speak of insanity, we cannot lose sight of those changes known under the name, disease. With this understanding, why shall we not associate drunkenness either with mental or corporeal defect?

Like every other disease, drunkenness has its stages of development. The first perceptible link in the chain of diseased action, is the habit of the so-called moderate drinker. He drinks a measured quantity, at a given time. This quantity is gradually increased, and these times become more frequent. Then comes an instability of purpose and action, a change of moral sentiment, a change in physical appearance, followed by all the more prominent symptoms of the appalling disease.

From statistics carefully collected and arranged, it would seem that lunatic asylums have received larger accessions from the ranks of the intemperate than from any other class of individuals. It is fair to infer, therefore, that there has been an intimate connection between the drunkenness and the insanity.

In some of these cases, there may have been a constitutional taint, predisposing to both drunkenness and insanity, the predisposition remaining inactive until developed by excessive drinking.

In other and more frequent instances, however, the insanity has been the direct result of intemperance, without any original predisposition. Go back to the inceptive of intemperance, and trace its effects on until the iron door of a lunatic asylum has closed upon its victim. It may be that nothing was felt except a pleasant exhilaration of the feelings and perceptibilities. Then, the system having become somewhat accustomed to its use, required more to produce a similar effect. This additional quantity gave accelerated action to the brain, and its thoughts came forth in a whirl; the heart sent its red current through the system with feverish rapidity, while aches, and pains, and loss of appetite, aided to disclose the mischief that was being wrought. If the stimulus had been now withdrawn, all the

energies of the system would have sank below the natural standard, and the man must have drank, not to renew the pleasures of stimulation, but to counteract an insufferable depression. From this time all the functions of the body were in an unnatural state—locomotion was enfeebled, the mind was fitful and uncertain, the will lost its anchorage, and went out to be tossed, here and there, by fierce elements —the brain was diseased—the man was insane.

Now, take one step back over the line from that condition of brain which consigns a man to a mad-house, and you will have the true state of a confirmed inebriate. How much more has the one man a calm control over his thoughts and actions and fierce impulses than the other?

The easy or difficult management of disease depends upon its violence. Scarlet fever, prevailing as an epidemic, presents every gradation, from the mild to the malignant; the one yielding without special treatment, the other demanding the best-directed efforts. So it is with intemperance.

The insane, by a sudden impulse, by a strong, direct moral power, have been restored to reason as if by magic. Fear from impending danger has given elasticity to the lame, and made the bedridden leap like the hare; copious hemorrhage, and intense pain, have been suddenly arrested by strong moral impressions. The sick have lived through hope, and died through despair.

Similar impressions made on the mind and nervous system of the drunkard, have revived the power and exercise of the will, and the result has been permanent reformation. But this is an exception, and is no more to be expected in confirmed drunkenness than spontaneous cures of disease produced by malaria, changes of temperature, or specific contagion.

Delirium tremens may be viewed as an extreme link in the chain of drunkenness. To establish the fact, that the brain is in an unnatural state during its existence, it is only necessary to refer to a few of the symptoms. They consist of restlessness, sleeplessness, and agitation of the whole body. The individual imagines that he hears music, the roar of cannon, the sound of bells, the clatter of the locotive, the rumbling of distant thunder, and all sorts of noises, undefined and painfully discordant. His eye is in constant motion, and objects, beautiful or grotesque, are incessantly flitting before it. He is excited to anxiety and terror by the approach of enemies, by the open jaws and glaring eyes of a monster, by the crawling of countless

vermin over his body, and by the nearness of faces with hideous and mocking aspect. In a word, there is no malady involving the brain that occasions such unspeakable agony as delirium tremens.

Take this phase of drunkenness back to the first link, and we will have presented to us, more clearly, perhaps, the nature of the first promptings to drink. Delirium tremens is not so much the effect of direct and immediate stimulation, as its complete or partial withdrawal. A brain that has been kept for a long time in a state of forced action, sinks into an almost powerless condition, if left to itself, and the demand for its accustomed stimulus is fearfully wild and ungovernable. Without this stimulus, the mind wanders into regions filled with fanciful objects, and beset with evil. It has Scylla on the one hand, and Charybdis on the other. If the man drinks, he is in danger of being killed; if he does not drink, he is in danger of dying. To a degree, this reflects the condition of the moderate, regular drinker. His disease is yet in its mild form.

The morbid impression made upon the brain continues, and increases with the continuance of drinking, until delirium tremens is induced. This unnatural state of the brain often yields to appropriate remedies, while many cases terminate fatally, and others settle down into incurable insanity. To the latter condition, I wish, for a moment, to direct your attention:

In the county of Hamilton, a man was convicted of the murder of his wife, and sentenced to be hung. The time came when he was required to ascend the scaffold, and to have the noose of the executioner around his neck; but as the few moments allotted him between time and eternity had nearly terminated, his sentence was commuted to imprisonment for life. The circumstances and details of the crime were horrible, and the public and press were indignant that so foul a monster had escaped just punishment.

Remember, the mind of that man never returned to right reason. Delusions, with which he was surrounded while drinking, and which impelled him to the commission of crime, remained in a modified form during the two years of his solitary incarceration. If you had seen that man a few days before he died, tearing and jerking the bones from his frozen and mortified feet, his face reflecting the most intense fury, you would have had no occasion to ask, Is not his brain diseased?

A quotation from the letters of Coleridge, written at a time when he was addicted to an excessive use of opium, will conclude this

branch of our subject. His language is: "There is no hope! O God, how willingly would I place myself under Dr. Fox, in his establishment; for my case is a species of *madness*, only that it is a *derangement*, an utter *impotence of the volition*, and not of the intellectual faculties. You bid me rouse myself. Go bid a paralytic in both arms, to rub them briskly together, and that will cure him. 'Alas!' he would reply, 'that I *cannot move my arms* is my *complaint* and my *misery*.'"

In another place, he says: "Conceive a poor, miserable wretch, who, for many years, has been attempting to beat off pain by a constant recurrence to a vice that reproduces it. Conceive a spirit in hell, employed in tracing out for others the road to that heaven from which his crimes exclude him! In short, conceive whatever is most *wretched, helpless* and *hopeless*, and you will form as tolerable a notion of *my* state as it is possible for a good man to have."

Will you say, after this, it is easy to reform? Coleridge did reform, but it was at a cost of much torture of both body and mind.

It has been claimed, that narcotic stimulants have been used in all ages; that there is, constitutionally, a desire for artificial stimuli among all nations, savage or civilized, and among all classes of men. And it is claimed further, that men everywhere produce and consume that stimulus best adapted to their own physiological states. "Hence, Siberia has its fungus; Turkey, India and China, their opium; Persia, India and Turkey, with all Africa, from Morrocco to the Cape of Good Hope, and even the Indians of Brazil, have their hemp and haschisch; India, China and the Eastern Archipelago, their betel-nut and betel pepper; the Polynesian Islands, their daily ara; Peru and Bolivia, their long-used coca; New Grenada and the Himalayas, their red and common thorn-apple; Asia and America, and all the world, we may say, their tobacco."

In their zeal for the suppression of vice and encouragement of virtue, men have advocated and passed penal statutes against the manufacture and sale of ardent spirits. And as much as we might hope for an entire suppression of the liquor traffic, we must look at things as they are. The exceptions are so few, it may be said that the whole world is somewhat addicted to the use of narcotics and stimulants. And history furnishes us with examples of the utter futility of all laws adverse to the wishes and habits of the people. And it becomes a serious question, whether, in the reaction of public sentiment, from inefficacy of law, evils are not increased.

King James described the use of tobacco—"A custom loathesome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and, in the black, stinking fumes thereof, nearest resembling the horrible Stygian smoke of the pit that is bottomless." Yet, "in vain King James opposed it by his counterblast to tobacco; in vain Pope Urban the Eighth thundered out his bull against it; in vain was the use of it prohibited in Russia, and the knout threatened for the first offense, and death for the second. The priests and Sultans of Turkey and Persia declared smoking a sin against their holy religion; yet the Turks and Persians have become the greatest smokers in the world." Coercive laws will not make men love God, nor hate the devil. They may inculcate virtue, and restrain vice, but they will not implant the one in the heart, nor uproot the other from it. They should discourage intemperance, and, by the aid of the moralist, can do something to prevent its overflowing the land.

Our object on the present occasion, however, is not so much to arrest intemperance as to provide for the cure of those who cannot cure themselves.

In the establishment of asylums for inebriates, the object is not understood by some, or it is willfully perverted. It is not to provide for them a permanent home, where they can recline upon easy couches, partake of the fatness of good things, appear in costly apparel, and still drink to their satisfaction. It is that they may be placed under such restraint, and be subjected to such moral and medical treatment, as will arrest their inordinate desires, and enable them to exercise control over themselves.

Is a man a periodical drunkard? Anticipate the period of his excess by close confinement, until the period shall have passed, and you will prevent drunkenness as readily as you prevent a paroxysm of ague by giving quinine in advance of an attack. Let this confinement be continued uninterruptedly according to the frequency of the inebriate paroxysms; or intermit the treatment, so as to prevent the paroxysmal appetite being gratified. In this way the chain of morbid action becomes weakened, and at length destroyed.

The nervous energies recuperate, the will resumes its wonted sway, and the man is himself again. This is not a new idea. It is only applying daily practice in other diseases to the disease of the drunkard.

The confirmed daily drunkard will require longer treatment, sim-

ply on account of his physical and mental energies being more depressed.

It has been said that if men desire in sincerity to reform, they can exercise as much restraint in their own homes as in an asylum. This was at one time urged as an objection to the erection of asylums for the insane. Insanity being attributed to the devil, it was supposed it was as easy for his majesty to prevent good works in one place as in another.

But all experience establishes the fact, that the restraints and influences of home have been inadequate to the cure of the insane, while in asylums they have been speedily restored to reason. Having lost all power over his will, the drunkard cannot resist the temptation of the bottle while it stands before him.

Knowing that liquor can be found, and that he can find it, and being under the control of the most ferocious of evil spirits, he rushes madly and blindly into all the ills that are in wait for him. Deprived of his stimulus, the morbid function demanding it abates, while appropriate medicine and a return to self-possession complete the cure.

It has been computed that in Ohio there are fifty thousand drunkards, and it has been asked, with a sneer and an air of triumph, what are to be the dimensions of your asylum? The same question was presented when your lunatic and blind asylums were projected. But as a large number require our aid, shall we refuse it to all? Because we have a mountain to climb, will we forever remain in the vale? Shall the angel of mercy fold her wings, or the spirit of religion droop its head, in consequence of the unbounded wickedness of men? Shall church doors be closed against those who would seek the better life, because they are not sufficiently large to accommodate, at any one time, all those who need the holy influences of the Gospel?

Fifty thousand drunkards! Shall we look upon the scenes of misery they create — the homes they make dèsolate — the poverty-stricken women and children that go about like gaunt, grim specters, and turn away with indifference and disgust, uttering only the sentiment, all this comes from drunkenness?

Is it not enough that you see, daily, some noble form reeling, and some bright intellect obscured, to rouse your sympathies and best energies? Then, if it were possible, bring all these scenes of havoc

and wo together, and if every cord of your soul is not drawn to its utmost tension, you are a thousand times less than a man.

If the cholera were to appear in your midst, spreading dismay among the people, would you, like a trembling coward, fold your arms, and exclaim, "I can do nothing: it will be of no use to try?"

It has been gravely asserted, that to create asylums for inebriates is to offer them a premium to drink. Strange argument to have originated with an eloquent temperance lecturer. To what have all his appeals been directed? To the reclamation of the intemperate. Will we say to him, as a discouragement, your word-painting is a premium to drink? You sketch the man, with his stupid, bloated visage, as a premium to drink. You describe his dilapidated cabin, as the abode of squalid misery and want, as a premium to drink. You throw him into the kennel with the hounds, or into the sty with the pigs, as a "premium to drink."

Will we say that of six hundred thousand persons in the United States who have taken the pledge, four hundred and fifty thousand had broken it, and that the pledge was "a premium to drink?" No. We shall cast no such reproaches; for all efforts to stay the progress of intemperance are commendable.

The temperance lecturer enforces his appeals upon the minds of those who can still think, and who have not lost all self-control. An asylum is designed for the reclamation of those who cannot reclaim themselves.

What, a man become a drunkard that he may be entitled to a place in an asylum? *Preposterous!* Will men induce inflammation of the brain, chest, stomach or joints—will they fall down precipices, throw themselves under locomotives, provoke blows upon the head, gashes with a bowie-knife, or deep stabs with a stiletto, for no other purpose than to become the inmate of a hospital? The State has erected an edifice with large, airy apartments for the accommodation and comfort of the blind; but, who would willingly lose his sight and grope his way in thick darkness to secure a permanent home?

Efforts are being made to cultivate a sort of instinct in the idiot, to make of him, at least, a creature of imitation, and the object may be highly commendable, for humanity without mind is a most pitiable spectacle; but who would willingly assume the character and relations of the imbecile to obtain shelter and protection during the remainder of his days? I have heard of a poor inebriate, houseless and friendless, who committed theft with a hope that he would

receive a just penalty for his offense, and that a long exclusion from temptation would enable him to recover from his malady. He was willing to suffer shame, imprisonment, degradation, every thing that would release him from an enemy which had deprived him of his manhood and steeped his soul in bitterness and woe. Say not, then, that in providing for the reclamation of the drunkard, he will be confirmed in his habits.

Those who look to law rather than facts, oppose the association of inebriety with disease, on the ground, that crime would necessarily go unpunished. With the enactment and enforcement of law, in the discussion of medical subjects, we have nothing to do. If our views of disease do not fit the law, or the law should not naturally apply to it, we should not be held responsible. The public must look for a more appropriate source than the medical profession, for protection against crime. If drunkenness be in truth a disease, we should say so, leaving the consequences, in a legal point of view, to be controlled by others.

It is no part of my object on this occasion to present to you a plan for future action. The general statement may be made, however, that the actual cost of sustaining a State asylum for inebriates would be almost nominal. Indeed, there seems to be no good reason why it should not become a source of revenue. There were twenty-eight hundred applications for admission in the Binghampton asylum, N. Y., while its walls were in progress. This large number comprised men and women from all the walks of life; and the institution could have been filled at once with patients willing to pay almost any sum to be cured of their fearful malady. So it would be in Ohio.

Again, each county in the State might connect with its infirmary an asylum for inebriates, with but little additional expense; and the cost of keeping and restoring them to health, would be less than is now paid for their arrest, trial and punishment. And then we should have the unspeakable delight in knowing, that we had rescued the fallen, and secured to them their true position in society.

What objection can be urged to the passage of a law requiring one, given to intemperance, to be placed under guardianship? If he is in possession of property, it can be thus preserved. If, at any time, he should lose his self-control, he can be properly disposed of before he runs into excess; and if his situation should require it, he could be at once subjected to the necessary cure.

The sick are always willing to be cured, and especially of a disease which renders them not only useless to themselves and families, but a burden and nuisance to the public. If we should, at this moment, see a man in imminent peril, from inattention or mishap, we would be prompt and active in his rescue. Let us not then turn a deaf ear and refuse aid to the drunkard. Think how many of our own profession have been decoyed and ensnared. Think of dear friends who have fallen, and may yet fall. Remember that we, too, are fallible. Let us be true to ourselves by being true to those who demand our sympathies and best-directed efforts.

There is no teacher capable of giving a more practical direction to the mind than experience. And yet, with the living, speaking, painful examples before us during our whole lives, we are but just opening our minds to a practical recognition of the fact, that drunkenness is disease Having obtained a true solution of the nature of intemperance, let our next efforts be in giving a proper direction to public sentiment.

I need not present any appeals to this audience for aid in the prosecution of the good work which has been feebly, yet cheerfully, advocated.

Take the crude suggestions which have been hastily thrown out, and elaborate them to some useful purpose. If they are not conclusive to your minds, allow me to say, in bitterness of spirit, there is not one — no, not one — who may not refer to striking examples.

How often has the father, after days or weeks of debauch, fallen upon knees of repentance, and with big tears flowing down his cheeks, asked to be forgiven! How often has he prayed God to bear witness of the rectitude of his intentions, and with a fearful oath declared he would die — die the death of the suicide — rather than suffer such remorse, and bring such shame and misery on his family; yet where, and what was he, ere another month had made its circuit? Alas! where, and what was he?

How often has the noble boy, the stay and hope of his widowed mother, been prostrate on a bed of sickness, from the inroads of intemperance upon his yet impressive frame! How often, at noon-day, when the light of heaven came, as it were, to render more visible his sinfulness, and, at night, when all was still but his own beating heart, has he resolved, and re-resolved, that never more should the liquid fire be mingled with the current of his blood!

And then, notwithstanding the soft hand of affection had been

often laid upon his burning brow, and tender, anxious care had been bestowed upon him, his first strong impulse was to drink to feed the flame that had not been quenched.

I need not inquire, how often has the weak, vibrating will yielded to the temptation?

When you reflect on these, and a thousand other facts equally strong, we feel assured that you will direct your thoughts to habitual drunkenness as a disease, and your efforts to the establishment of asylums for its cure.

[K.]

REPORT ON FRACTURES.

BY R. THOMPSON, M. D.

FRACTURES of the various bones of the human body, from those of the more grave character, resulting in death or decrepitude, to such as involve neither life nor form, have, we may assume, during every age, been looked upon as evils demanding immediate attention, and subsequent curative treatment, whether rendered by savage or civilized man.

In the earlier history of the world, before either science or art had contributed anything toward establishing systematic surgery, it is reasonable to suppose that injuries, inflicted by accident upon the visible members of the body, were treated with great simplicity, by re-adjusting fractured or dislocated bones, and the approximation of lacerated soft parts. Such a practice would be the result of a first impression, on witnessing the distortion of limbs; while the agonizing sufferings of the individual would move the sympathies of the most efficient assistant to administer to his necessities, by replacing and maintaining the injured member in a state of as perfect quietude as circumstances would justify; and in this, the savage and the surgeon of the 19th century would agree. In this age of progress, when science and art are impatient of delay or hindrance, working out results but of late deemed unattainable, we must confess a little chagrin, on looking back to the days of Ambrose Pare, to learn, that in the treatment of that most common of all surgical accidents, fractures, three hundred years have added but little glory to the escutcheon of modern surgery.

In his great surgical work, we have detailed, in minutiæ, his own case of compound fracture, in the lower third of his leg, in which a perfect cure was made; and this, too, by a mode of dressing, and a just appreciation of certain appliances, which, if properly carried out

in our own times, used with his detail of wise, practical suggestions, would, doubtless, serve the cause of humanity in preventing decrepitude; while resultant prosecutions for mal-practice would be but seldom, if ever, heard of.

As the object of this paper is of a two-fold character, to wit: the protection of humanity against the evils which frequently result from the improper practice of surgery, on the one hand; and the injurious prosecutions so often of late instituted against surgeons who have faithfully discharged their duties, on the other: I will, retrospectively, glance at the treatment of fractures; and though the view must necessarily be brief, it will, I trust, assure us that the foundation, laid more than two thousand years ago, is not unworthy the superstructure which has been erected thereupon by distinguished cultivators of our profession, during the more recent past.

The course I have adopted is that which, to my mind, is best calculated to be useful: the illustration of precept by example, which will involve the introduction of material drawn from my library, observation and experience in my own practice, with such information as I may have derived from consultation and intercourse with my brethren, during the past third of a century, and from the witness-stand, in courts of law.

Being fully aware of the very prevalent belief, that to understand and practice well what has hitherto been written, is better than to make additions to the *lex scripta* of the profession, I, of course, will not stand charged with the vanity of intending to add much either to the bulk or value of surgical literature. Yet possessing a living faith in the great moving principle of the age, "progress," I am willing to acknowledge my indebtedness to the past by an attempt to thus promote the interests of humanity, and the honor of our profession.

The Causes of Certain Failures in the Practice of Surgery.

That all men who enter the medical profession are not calculated to practice surgery, is a fact which requires no discussion. I mean, of course, the special practice. But that every man who occupies an isolated position in the profession, should be capable of exercising the functions of surgeon, in so far as to be able to administer to the neighborhood's necessities induced by accidents — such as fractures, hernia, hemorrhages, etc.— is so evident to my mind, that no diploma or permit to practice should be granted to such as would be unwilling

to discharge such duties; or, at least, to take charge of such cases until more efficient aid could be obtained in the services of a professed surgeon.

To separate the science of medicine from that of surgery in an educational point of view, is so clearly absurd as not to be tolerated. Indeed, the student of medicine, so called, ought to be so instructed as to render him equally familiar with both branches, as they are, in fact, but parts of a great whole, whose object it is to render palliative, or curative aid, to all who may, by disease or accidental injury, be brought within the sphere of his professional ministrations. Thus educated, peculiar circumstances or tastes may shape the course of his career; while his qualifications will render him a practitioner equally safe to his own reputation as to his patient's welfare.

To affirm the practice of surgery to be a mere mechanical art, is to insult the understanding of all who know that the medical treatment of the most interesting cases of surgery may, and often do, require the exercise of a more acutely discriminating judgment, than is displayed in the devices and execution of all the artistic operations and appliances pertaining to their treatment. What would be thought of the surgeon who, after having performed a capital operation in the best manner known to the art, would permit irritative fever, abscess, mortification, sloughing, emaciation, hectic, and death to ensue, through a want of that knowledge which would enable him to anticipate and prevent those evils? To merit the highest approbation of the profession as a surgeon, would or should be no valid answer to the charge of malpractice, if limb or constitution sustained injury, or other evil had befallen the patient through his want of skill, in the medical treatment of the case.

Another serious objection must ever lie against the separation of the medical from the manual parts of surgery, as practiced in some parts of Europe. I mean, the division of responsibility. Where a surgeon is engaged in a case, the entire responsibility should be his, unless shared by another surgeon of his own, or his patient's choice; and this but as seldom as possible, for the better efforts of the man are called out only while under the weightiest responsibility. Indeed, responsibility, like property, may be squandered by division. Were it possible to ascertain the amount of human life that has been permitted to slip between the fingers of the surgeon, apothecary, and physician in England, we would stand appalled and stricken with

horror at the announcement. To the end, therefore, that the greatest amount of good may result to the world, and the least of evil to the profession, let all be educated as if intended for the indiscriminate practice of medicine and surgery, as is generally announced in the bills of practitioners, and then as some inherit insurmountable obstacles to their becoming operative surgeons, let such decline cases that are not within their capacity to treat, excepting in so far as stern necessity would compel them to engage in, and even in those take a disclaimer of responsibility from the party demanding the services.

But while I would thus advise all to place themselves in safe relations to their patrons, by undertaking nothing above their skill, I am free to express the opinion that, as fractures constitute that class of cases upon which more suits for malpractice are based than all others, I firmly believe their treatment may be so much simplified, and rendered so perfect in their results, as to exclude from the list of causes all suits for shortening and deformity of limbs.

There is another and still more important class of fractures, which, although they are never seen in court as suppliants for redress of grievances at the hands of the surgeon, are nevertheless worthy of notice in this connection. I allude to fractures of the skull. The fact that fractured skulls do not complain either to the ear or the eye, is no valid reason why their surgical treatment has in all cases been blameless. If such recover, even with visible mar of scalp or cranium, the subject is thankful. If he do not survive, the surgeon stands acquitted for want of a prosecutor, though in many cases an unlucky or wicked wight is hung for the blow struck, while the surgeon was clearly blamable for a failure to cure the wound. Of such cases I shall speak hereafter.

Fractures resulting from Accidents in Machinery, Railroads, etc.

The introduction of railroads, together with the increase of machinery in our country, has greatly enhanced that most fearful and appalling of surgical practice, the treatment of fractures and crushed bones, with laceration of soft parts, so extensive as to unnerve the timid and subdue the energies of the stoutest heart.

But as the cries of humanity in this class of cases, operating upon the highest sense of duty, demand decisive action, it is proper we should speedily and wisely determine our line of conduct.

In cases of comminuted fracture, with extensive laceration of soft

parts, when a moment's doubt cannot be entertained as respects amputation, the shock of the nervous system may have been such as to raise a question upon the propriety of immediate or deferred operation. The decision of this question should be governed by the peculiar nature of the case and kind of treatment which the surgeon may believe to be proper, previous to the proposed operation. If the patient be seen within an hour after the accident, and found pale and cold from loss of blood, nervous shock and agonizing pain, pulse frequent and feeble, an immediate amputation would prove fatal. But it might be safe to presume, that under the free use of quinine, opium and ardent spirits, amputation might be made within a few hours with present safety and reasonable prospect of success. Some may inquire, what is a free use of the articles mentioned in such cases? I would say, begin by administering from two to four grains of pulverized opium, five grains sulphate of quinine and three grains capsicum, to be swallowed with a wine-glass full of whisky, or its equivalent in any other article, and repeat every half hour, until warmth of the extremities and a free circulation is restored, which will be effected within the time specified, unless a fatal amount of blood has been lost, or a deadly injury inflicted upon some internal organ. When amputation is determined upon, chloroform is administered with its most beneficial results. Should the patient be depressed by the operation, the same stimulating course should be continued until a free and full reaction is established.

To defer an operation waiting for reaction, in the ordinary sense, is to wait for that which may never take place; while to operate without an attempt to elevate the tone of vitality, is to jeopardize life, when no possible injury can result from the restorative plan here suggested. The fear of the depressing effects of chloroform has deterred many from using it in that class of cases in which, over all others, it claims our highest consideration. I have operated upon patients since the discovery of chloroform, upon whom it would have been madness to have attempted an operation without its beneficent aid, with perfect safety and ultimate success, even where many hours of previous powerful stimulating treatment had to be used, to warm the extremities and elevate the vital forces so as to justify the proceeding; and this too, in patients where scrofula had wrought the destruction of the knee-joint, or necrossed the shafts of the bones, with the most squalid degree of emaciation, as well as in cases where

ostea-sarcoma had destroyed the organism of the superior or inferior maxilla, or cancer of the mamma had reduced its subjects almost to the dying point.

I trust this digression will, as it is intended, give assurance of my abiding faith, not only in the utility but absolute safety of chloroform in a class of cases by many believed to contra-indicate its use. But I desire to impress it upon the memory of all, that the antecedent and subsequent administration of stimulants and tonics, is a condition not to be neglected. To timid patients, however vigorous in a physical point of view, the same rule modified is equally applicable, and would, I believe, prevent fatal results. If it were possible to see a patient crushed by machinery very soon after the occurrence of the injury, say, within fifteen or twenty minutes, I would administer stimulants and opiates without delay, and operate, because the shock upon the nervous system is not so deeply depressing as the excessive suffering, which loss of blood and exposure of lacerated parts to the air will rapidly induce, should the operation be delayed longer. In all cases the limbs should be placed in as comfortable a position as possible, and the lacerations carefully brought together and covered, while preparations for further proceedings are being made.

As limbs have frequently been amputated which deserved a better fate, when the laceration was longitudinal, with but a clear fracture of the bone, it is well to consider carefully whether such limbs cannot be saved by a proper adjustment of parts. Indeed, I have known an arm amputated where nothing but an extensive laceration of the soft parts between the elbow and wrist had been made by a circular saw, which did not, in my opinion, justify such summary and severe treatment.

While we cannot be too anxious for the safety of the limb, it is easy to jeopardize life by attempting to do more in this line than the nature of the case will justify; as in the surgery of gun-shot wounds, as Ambrose Pare and others will bear witness. But whether we attempt to save the limb or not, one thing, as a rule of good practice, is certain, that, in proportion to the extent and violence of the injury, so must the soothing and sustaining treatment be. This rule I have seen violated through fear of inflammation; but never with profit to the patient. Every surgeon should be aware that it is much easier to pull down than to build up; and more especially do we well know how much more difficult it is to control irritations, based upon depletion, than such as have their origin in artificial stimulants. Nor

should it ever be forgotten, that to *prevent excessive reactions*, no means can equal sulphate of quinine and opium, administered immediately after the reception of a severe injury or surgical operation.

Surgeons are governed, in the use of stimulants, by their patient's previous habits. This is a most important rule of practice as regards the run of subsequent treatment, but I have never seen a patient who suffered much, either by injury or operation, that did not require stimulants at the time, and this, too, just in proportion to the degree of prostration and the amount of suffering. Nor have I ever witnessed, in any case, injury to result from this practice. While, on the other hand, who has not seen very grave consequences to follow from a want of such sustaining influence; such as slow reaction, imperfect reaction, no reaction, and death?

In reproducing these views, it is not intended to instruct, but to earnestly urge their observance upon such as may entertain fears, or act timidly in their application.

Of Surgical Apparatus, Splints and Dressings.

To write a history of the innumerable devices that have been made and used for the treatment of fractures, would result in the production of a volume which would hardly compensate for its perusal. But, while this might be conceded, it is nevertheless true, that a proper knowledge of the mechanical treatment of fractures is a branch of surgery of much greater interest to the practical surgeon, as well as to a much greater number of deeply interested human beings, than is the operation for stone in the bladder, or the surgery of aneurism. Hence, therefore, the necessity of being ever prepared to meet the demands made upon us by accident—prepared not only with the proper scientific knowledge, as already suggested, but also with such apparatus as the ordinary run of this class of accidents would demand; or, in the absence of such, be able to devise and construct appliances out of such materials as present circumstances may place within our reach. Indeed, it is difficult to conceive that a fracture of a limb can occur in a place so destitute of material within reasonable reach, and of such quality as to be readily convertible into a tolerably good first dressing, by hands accustomed to the use of instruments, and the adaptation of means to ends. In the vicinity of a cooper's or carpenter's shop, a book-bindery or tannery, materials for the construction of dressings are always at hand; and, where is the farm-

house that cannot supply the raw material for the construction of dressings in the articles of corn-husks, rags, and flour-paste? all of which may be collected and prepared in the space of ten minutes; while a piece of an old sheet, with a handful of straw, will supply the most convenient material for the old-fashioned junk-cloth, which is decidedly preferable to any fracture box within my knowledge for the safety of the limb, during the removal of the patient, if from home, to his place of residence.

In Bonaparte's Russian campaign, Baron Larry was obliged to resort to the papers and parchment found in the archives of cities, ravaged by the French army, to supply the material necessary to dress the wounded in battle. In the more refined home and hospital practice, a great variety of materials have been fashioned, by the hands of ingenuity, into splints, boxes and supports, for the much desired end of keeping the fractured and lacerated parts in their natural proximate relations, in a comfortable and steady manner. Wood, iron, brass, leather, gutta-percha, paste-board, plaster of Paris, woven or felted fabrics, adapted to the limb, and stiffened by the addition of starch, shellac, and dextrine pastes, have been wrought after many devices, in as many ingenious forms, to meet the indications of this most common and deeply interesting branch of surgical practice.

In cases of oblique fracture, with a strong tendency to muscular contraction, light wooden splints may be attached to the sides of the shell dressing, to extend a few inches beyond the heel, and adhesive strips used to assist in maintaining the natural length of the limb.

In this array of apparatus, we find evidence of the interest felt by the profession in this subject, as well as proof of their failure in many instances to answer the ends intended by their authors. Great men have invented instruments, among whom were some of world-wide fame as *operators;* while *science* was honored by claiming them as *her votaries.*

That an inventor of apparatus is capable of making a greater per centum of good results by the use of his own devices than are attainable by others, I presume all will admit, and for the following obvious reasons:

1st. In so far as the purpose of his invention, in all its parts and uses were concerned, he would understand better the manner of its application, and its *modus operandi*, than others.

2d. Pride of paternity would doubtless cause him to exert his

utmost skill and care in its use. But, notwithstanding all skill of application, love of paternity, of reputation and gain, which might be thrown around them, but very few kinds of apparatus have long survived their inventors, excepting in so far as some valuable principle was involved.

What, then, should we deduce from these facts? Either a want of proper simplicity in their device and structure, a want of proper appreciation of their merits, or a want of that intrinsic value which could entitle them to the lasting confidence of the profession. To the first and last of these causes, I attribute their ephemeral reputation. To prove successful in the greater number of cases, surgical apparatus should be easy of application and certain in its effect, easily retained in place, and worn without inconvenience. To answer all these desirable ends, great simplicity of fashion, and lightness of structure, should be adopted.

To be assured of the fitness of a dressing in any case, it is necessary to know that it occasions no undue pressure upon any part of the member to which it is applied, and that no pain or inconvenience results from its use; while it permits the patient to enjoy such changes of posture as may conduce to his bodily comfort and health. Because, to inflict upon a fractured limb rigid restraint by extension and counter-extension, upon a firm base, with foot fixed, the pelvis and other parts of the body free, is, to my mind, the most certain way to induce painful irritations, spasmodic twitchings, and ultimate disturbance of the fracture, which will result in a protracted and imperfect cure.

Whatever fashion of close dressing may be preferred, the limb should first be sponged with a strong solution of salt, in either spirits or water, and overlaid with a layer of raw cotton.

The Best Means of Keeping Broken Bones in a State of Closely Proximate Apposition.

To keep the fractured ends of a bone in a state of coaptation, is one of the most desirable points in the treatment of broken limbs, and requires an adaptation of means easily understood and easy of application. It is evident, that in order to prevent the tendency to rotate upon their axis, the opposing portions of bone must severally be controlled through the articulations above and below the fracture, as the fragments cannot gyrate upon each other if the dressing firmly

embrace the articulations, and, with their continuous intermediate substance, constitute a crust or shell.

This principle is equally applicable to every variety of fracture, if proper care be taken in the adaptation of the splints to the bony prominences of the joints. Other and very positive advantages, which the light, or surface splints possess over other apparatus, may be briefly enumerated. If the fracture (a simple one) be reduced before the limb has ceased to swell, the fashion which is secured upon the limb by the many tails, fastened with pins, paste or tie, is capable of being relaxed so quietly as not in the slightest degree to disturb the fragments or change the condition of the extending forces. And again: As the limb diminishes in bulk, either from a subsidence of swelling or from emaciation, the same facilities give us an easy control over the security of the fracture, by tightening the dressing.

In fractures of the thigh, in whatever region situated, strong binders' board, well soaked in hot water, should be carefully moulded upon the parts, from the knee to the crest of the ileum on the outside, and to the perineum on the inside. Before the bandages are applied, the surface of the board should be well covered with a strong flour-paste, to prevent the dressing from becoming displaced. The upper section of the bandages should pass around the pelvis, to firmly secure the moulded board in place in this very controlling region. Of course this involves the extended posture of limb.

The wire web, cut into suitable forms and neatly adjusted, will be found to answer admirably as material well adapted to the splint support of fractured limbs. To prevent it from rusting, it is well to either paint or varnish it.

To the treatment of compound fractures every facility is afforded, by leaving an open section, corresponding with the size of the wound, which can be opened and closed without inflicting the least inconvenience upon the patient, or jostle to the bones. Another advantage is gained by the change of position, which is tolerated by this form of dressing, an advantage which cannot be too highly estimated, when we consider the importance of preventing bed-sores and sloughing of the heel and instep, evils of immense magnitude, as we shall learn from Ambrose Pare and other distinguished surgeons, during the past history of our art. (See references at the end of this article.)

In compound fractures, where most disastrous consequences may

result from the biting and nipping of the contiguous soft structures, occasioned by the movement of broken bones, such as spasm of the muscles, pain, loss of rest, suppuration and gangrene, it must be evident that to secure the greatest quietude of parts, in their closest proximate relations, is the highest duty of the surgeon.

To know what is required of the surgeon when called to take charge of a case of fracture, it is proper to ascertain the positive state of things in every respect, as very trifling circumstances may materially interfere with the best interests of the patient. If from home when the accident occurs, even at the distance of a few miles, it is better to reduce the fracture and apply the best dressings which may be within reach, than to enhance his difficulties by removing him with the bones unset; as, by the most careful means of transit, it may be impossible to protect the soft parts from farther injury by their unavoidable contact with, and movement upon, the unadjusted angular extremities of the bone. Indeed, simple have been converted into compound fractures, by the indiscreet removal of a patient before the bone had been set. If the limb has been dressed before the patient is taken home, it will be incumbent upon the surgeon to see him immediately afterward, to know that all is right; and I may remark, that it is easy to talk about placing a patient upon a mattress, and of doing this and that, all of which would be well enough; but as accident does not always select the wealthy for its subjects, a practitioner is obliged to make the best of things, as he finds them in the hut, hovel, or palace. However, it is incumbent upon the surgeon to devise ways and means to suit every conceivable condition in which he may find his patient, and never forget, that the more destitute the patient, the more frequent must be his visits, and the more vigilant his care.

But to return. If much swelling take place suddenly after the injury is received, it may be inferred that blood has been freely effused; and unless the swelling is great, no danger is to be apprehended, as the effusion of blood in the vicinity of the fracture is beneficial, by keeping the soft parts from bearing too rudely upon the fragments of bone while in an unadjusted state. This condition of things requires the application of such dressings as may be conveniently tightened, as the absorption and diffusion of the blood may diminish the size of the limb. This is readily done by retying the tails of the bandage, if this form of dressing has been used, to secure the splints. If the paste or shell splints have been applied, with an

unstiffened section up the front, tightening is readily effected by passing a few turns of a roller around the limb. Should it be necessary to remove the dressing for any purpose, this is easily effected by splitting it with the scissors in this soft front line, which will in no sense unfit it for further use; the only addition to perfect it will be a roller, as above suggested.

Per Centum of Good Results in Fractures of the Extremities—Malpractice—Means of Prevention, etc.

I mean, by good results, such as neither lame nor deform the individual after the lapse of a year. A large majority of cases make perfect recoveries within a much shorter period; yet there are those in which, through debility of the moving powers, acquired obliquity of pelvis, and awkward, careful habits of movement, are long in recovering the use and natural motion of their extremities. Such only require time to overcome all supposed difficulty, although during their slow recovery, through their own ignorance of the true nature of their condition, and the very freely proffered advice of some ignorant pretender to skill in such matters (and not unfrequently by the advice of those whose business it ought to be to minister in holy things), are induced to think of prosecuting the surgeon, who may have saved both life and limb, and this, too, without either reward or hope of recompense. But this is not all. To add to the baseness of such ingratitude, I have seen numerous individuals, who, in trying to make out their cases, would feign decrepitude of gait, rigidity of muscle, anchyloses, or painful locomotion, so ingeniously as to deceive the unsuspecting, and involve all the consequences of a prosecution for malpractice.

But while surgeons may occasionally fail of effecting as perfect cures as would be creditable to the profession, from circumstances over which they could have no control, it is gratifying to know that in almost all cases of simple fracture, perfect results may be effected with as much certainty as recoveries from most forms of disease, which require the attention of the physician; while in compound fractures the per centum of bad results is not so high as twenty-five per cent. To magnify the per centum of bad results in ordinary practice, is to do injustice to the profession, by setting too low an estimate upon its services; while it is known in every neighborhood that great numbers of fractures are reduced, dressed, and cured without any professional aid whatever; while in the hands of country and village practitioners, cases of imperfect cures are very rare in-

deed, even in compound fracture; while in city and hospital practice, so high a ratio of success is not always attained; and for the following reasons. In the first place, in the country, where the practitioner is sustained by no adventitious circumstances, such as a high profession, place or position, results become notorious; his cure is his credit; his success, his fortune. A case of fracture is of rare occurrence to him; a crooked limb he looks upon as disreputable, as it may prove disastrous; his highest aim is to overcome every difficulty in his way in securing to his patient a perfect cure.

In city and hospital practice, fracture is not deemed of the first order, unless the patient be a person of consideration (which in hospital is seldom the case). This, together with the slight responsibility that attaches the surgeon to his patient, and the easy *division* of his responsibility by consultation, hospital atmosphere, etc., etc., all conspire to lessen the chance for perfect recoveries. In reply to this, it may be alleged that the facilities of apparatus and nursing in hospital (to say nothing of superior skill) would outweigh all the advantages that might be asserted of country practice. It is true, a fine show of apparatus is very pleasing to the eye, and good nursing is a matter not to be slightly considered; yet, when it is known that every man best understands the application and effects of his own means, however simple, and it is generally the case the more simple the better, and that family nursing is the best of nursing, it is easily perceived why we should see better results in the town, village and country practice than is found elsewhere. Apart from all argument, I know, from observation, that such is the fact.

How to avoid Prosecutions for Malpractice.

As the surgeon may sometimes be so unfortunate as, by some means or other, to become involved in a suit for malpractice, it may not be improper here, to look into the nature of such matters a little further; and inquire, how are such difficulties to be avoided? If a practitioner be called to a case, the difficulties of which he is unable to master, let him say so; and only do the best he can, until another is placed in charge, either singly, or with himself. There is nothing disparaging in this. But if the patient and friends insist, and are willing to intrust to hands disclaiming skill, in such cases he should waive all responsibility as to the result, engaging only to do the best he can under the circumstances.

In all cases, the surgeon should enjoin attention to certain rules in

nursing and handling of patients proper to be observed, giving attendants definitely to understand that a deviation from them would waive all his responsibility, and place it upon themselves. Again: unless a surgeon be permitted to visit his patient as often as he may deem necessary, a bad result should not be laid to his charge, nor should he be held responsible, if he be not immediately informed of any mishap that may occur in the interval between his appointed visits.

To remove the fragments of skull, no instruments were needed but such as are contained in the ordinary pocket case.

FRACTURES OF THE SKULL.

Case 1.—In the female ward in the Ohio Penitentiary, a quarrel arose between two of the convicts, when one seized a large fire-shovel, and inflicted several wounds with the edge of the instrument upon the frontal region.

The wounds, being examined by the physician of the institution, were dressed in the ordinary fashion of scalp injuries, and no further notice taken of the case. On the evening of the second, and morning of the third day, pain in the head, with general irritative fever, supervened. The case progressed rapidly, and terminated fatally on the fourth day, having exhibited in its run the ordinary symptoms of cerebral inflammation.

The medical officer of the Ohio Penitentiary being absent, I was called upon to ascertain the cause of death, before a coroner's jury.

In laying open the scalp, I found, in three several places, fissures in the external table of the skull, evidently inflicted by the edge of the shovel (as above); the sections of the skull being about one-eighth of an inch wide. On opening the skull, I found the internal table depressed on either side of the external fissures to the depth of four lines; their rough angular margins depressing the meninges and cerebral substance to a corresponding extent.

As should have been anticipated, irritation, inflammation and death rapidly succeeded each other.

The unfortunate culprit who, in a moment of great excitement, had inflicted the injury, was tried, condemned, and hung.

Case 2.—An altercation took place between two gentlemen, Mr. —— and Mr. ——. The latter inflicted a wound upon the head of the former, above the left ear. A surgeon, being in the immediate

neighborhood, took the injured man home to his (patient's) residence, and made such applications to the head (the scalp being unbroken) as he deemed proper, and left. He visited his patient as often as he deemed necessary. Inflammatory symptoms supervened. The case ran through a rapid course, and terminated fatally, on the fifth or sixth day after the reception of the injury.

I assisted in the post-mortem examination, and on the scalp being laid open, we found a portion of skull of equilateral form; the sides of the triangle measuring one and a half inches, with one side slightly attached, or rather bearing against its corresponding margin; while its opposite angle was depressed to the depth of half an inch, bearing firmly upon the depressed dura mater; the space between the membrane and the skull being filled with coagulated blood, with very extended evidence of destructive inflammation.

In this case there was no prosecution, as —— left for parts unknown before —— died.

This case illustrates a fact of no unfrequent occurrence, that a hasty ebullition of passion, on behalf of the unfortunate subject, often jeopardizes, and frequently destroys, the lives of both parties to a quarrel, most evidently through the inadvertence of the surgical attendant.

Another class of cases result from injuries induced by irresponsible causes, called accident, and, consequently, where the life only of the patient is involved. Take the following, for sake of illustration: A. is called upon to see a patient; finds the scalp badly lacerated, with fracture of the skull. Sends for counsel. Counsel arrives; examines the wounds; finds depression of a fragment of bone, with a slight protrusion of cerebral pulp. A. suggests the elevation of the depressed fragment. "Counsel remarks it would be better to wait two or three days." The parents, not satisfied, send for another professional man, after the former had left. The surgeon last called arrives late at night, (the accident had occurred early in the forenoon preceding.) The wound is exposed; the scalp wound is dilated, and a portion of skull, two and a half inches long by three-fourths of an inch (average) wide, removed from its lodgment, underlying, by half its width, the solid margin of the skull. Another portion, one-fifth the size of the former, was also removed, and about two drachms of cerebral pulp discharged, with coagulated blood, from a large rent in the dura mater. The wound was simply dressed, and all possible care taken by the family; but from the irritable state of

the child (aged four years), it proved impossible to obtain that absolute state of quietude required, and for the want of which, in a great degree, fungus cerebri was developed, which, with its ordinary concomitant train of symptoms, resulted in the death of the little sufferer, on the thirteenth day after the injury. While in a rare case it might be proper to delay the reduction of a fracture of an extremity for a few days, is it possible to conjecture a train of circumstances in which the surgeon would be justified in postponing the removal of sharp, compressing and irritating portions of the skull, driven into the brain? In this case, the want of trephining instruments could not have been an excuse for an hour's delay, as the pocket-case furnished every thing necessary.

Indeed, it would be offensive were I to call upon authorities to prove the imperative duty imposed upon the surgeon by the nature of the case. As wise would it be to leave a jetting carotid unsecured, or the burning garment upon a child, as to defer till to-morrow, or next day, the removal of causes so certainly fatal in their operation as those presented above.

To know how, requires but little skill — to know the necessity, but little knowledge; while to be afraid of deadly hemorrhage, is unsurgical. To permit the patient to suffer much, and die of inflammation of the brain, rather than to afford him every possible chance of recovery, lest some one should attach blame to the proceeding, would be inhuman. Case.—A son of Charles Rarey, near Groveport, had his skull terribly fractured by the kick of a horse. Dr. —— was called to see the boy, and found a gaping wound in the left temporal region, through both scalp and skull, with considerable hemorrhage, and bulging out of broken-down cerebral matter; declined disturbing the wound, but simply bound a pledget of soft rags over it, remarking to the friends, "it would be cruel and useless to torture the boy by an attempt at removing the fragments of bone, as he would, at best, live but a few hours." The friends, wishing to do everything possible for the patient, sent for another surgeon, who removed a section of skull, which was deeply driven into the brain, 3½ by 1¼ inches (average) wide. The result was a speedy recovery. [See this case reported in the proceedings of the last session of the Ohio State Medical Convention.]

It is true that, in many injuries of the head, we are in serious doubts as to the existence of fracture. Without presenting the views

ordinarily entertained upon the pathology of injuries of the head, I will state one cause of error as regards fracture of the skull.

Suppose a case where the injury had been inflicted by a hard round or blunt instrument, leaving the tissues so deeply disorganized as to destroy their circulation, in so far as to present to the touch the idea of depression occasioned, in part, by a disorganized state of the tissue between the scalp and the skull. This state of things has misled many young surgeons, as was my own early experience.

Trephining on Suspicion of Fracture, with Depression or Spicula.

Case 1.—A lady was thrown from her horse, and her head projected against a knot on a tree, her hat and hair interposing. The scalp was depressed, as above suggested. The ordinary symptoms of compression being present, and fully assured by appearances, I laid the scalp open, but could discover no fracture; the slight bleeding from the wound was salutary as local depletion. As a knowledge of the existence of fracture is so important, while no injury is likely to result from a division of the scalp, in all doubtful cases I would advise this course. A cautious diagnosis, with a statement embracing not only the probable, but the possible condition of parts, should be made before making the examination by the knife.

Case 2.—Mr. Gill, of Fairfield county, received a stroke upon the back part of the head, over the left lateral sinus, which attracted no particular attention. After the lapse of a few months, however, his family began to notice such changes of character and conduct as to call their attention seriously to his condition. His habits, from being gay and sprightly, became retiring and taciturn, with a disinclination to see company, or converse with his particular friends. I was consulted, and, upon examination, found a slight tenderness, on pressure, in the region abovementioned, and inclined to a belief in the existence of fracture, with spiculæ; suggested, as a means of probable relief, a resort to the trephine (other means having been used for the term of a month without benefit.) The suggestion being received with favor, I proceeded to make the operation by opening the scalp, and the removal of two sections of skull, by a trephine of the second size, over the course of the left lateral sinus, which, upon their inner surface, exhibited a trace slightly indicating the preëxistence of fracture, with a few inconsiderable rough elevations on its margin. The dura mater presented a darker than normal appearance. During the operation more blood was lost than I

was accustomed to see, and this was more particularly the case in a free effusion from intertabular capillaries. The case terminated most favorably, affording immediate relief from the above enumerated symptoms. The scalp healed rather slowly, which I looked upon as favorable by sustaining a salutary discharge of pus, with a mild degree of counter-irritation.

I am aware, it may be alleged that the operation of trephining should not be made (unless in cases of great urgency) over the line of great sinuses. The danger of hemorrhage from this source, is of no serious importance. So far as my memory serves me, I know of no instance of fungus cerebri having been developed in such locality, nor do I believe it likely to occur unless the entire walls of the sinus be destroyed.

Case 3.—A young man, in the winter of 1857, received an injury on the right side of the head, by being thrown against a block of ice. After the lapse of a month, he began to experience pain, with fullness and occasional giddiness in the head. The symptoms, although under treatment, increased in violence, so as to induce coma under circumstances of slight exertion. An acute pain above the ear of the right side, with a tenderness in the scalp, were present at all times, with increasing evidences of local internal inflammation. An operation was suggested, and readily acquiesced in by the patient. A trephine section of the larger size was made, one inch above, and rather behind the tip of the ear, revealing a rather more polished surface than is seen in a natural condition of that membrane. From the loss of blood, which was not considerable, the patient experienced a slight abatement of symptoms for a brief period. On the night following the operation, the symptoms became highly aggravated, which induced me to reopen the wound, and inspect very critically the condition of the dura mater. Although its surface was not changed, in either color or polish, yet it was visibly protuberant in the center, and manifested to the touch a yielding disposition. Believing this state of things to depend upon under-lying fluid, I punctured the membrane, and was gratified to witness the escape of slightly bloody pus, amounting to between one and two drachms. This enlivened my hopes, as the patient experienced very great relief. I dressed the wound lightly, with pledgets of lint wetted in tepid water, after which he fell asleep, and awoke within an hour, with deeply-aggravated sufferings, terminating in delirium, under which he lingered a few hours and expired.

REFERENCES.

"So long as the fragments are not strictly in apposition, the greater will be the amount of local irritation."—*Fergusson*, p. 131.

"I feel satisfied that it is best, not only to set the fracture, but to apply such apparatus as may be deemed requisite as soon after the surgeon sees the case as circumstances will permit. The advantages of an early reädjustment must be so apparent that it is scarcely necessary to quote such high authorities as Mr. Pott and Sir James Earle, to enforce it."—*Fergusson*, p. 132.

"Besides the frequent necessity for loosening or tightening the bandages, averting undue pressure on particular points, ascertaining that no unusual inflammation is going on, no vesication on the surface, no suppuration within, it is incumbent on the surgeon also to observe that no displacement occurs during the movements of the patient or otherwise, so that he may, in such an event, take the earliest opportunity of putting the parts to rights."—*Fergusson*, p. 132.

"Out of the many cases treated in our public hospitals, there are few examples met with of marked deformity."—*Fergusson*, p. 133.

"Those who have their leg or thigh broken, are obliged to keep themselves without stirring for a long time together. In the mean space, the parts whereon they must necessary lie, as the heel, the back, holy-bone, rump, the muscles of the leg remain stretched forth and immovable, whereby it comes to pass that all their strength decay, and becomes dull by little. * * * They grow preternaturally hot, whence defluctions and abcess happen to them—but principally to the holy-bone, the rump and the heel. * * * Now these parts are difficultly healed—yea, and often they cause gangrene of the flesh, and a rottenness and mortification in the bones thereunder, and in most part a continued fever, delirium and convulsions. * * * All of which are deadly by dissipation of the native heat by the feverish and that which is preternatural, as also by the infliction of the noble parts, whose use the life cannot want by carrion-like vapors. When, as I considered these things with myself, (and become more skillful by the example of others,) understood how dangerous they were, I wished them now and then to lift my heel out of the bed; and, taking hold of a rope which hung over my head, I heaved myself up, so that the parts pressed with my continued lying might

transpire, and be ventilated. Moreover, also, I rested those parts upon a round cushion, being open in the middle, and stuffed with soft feathers, and laid under my rump and heel, that they might be refreshed by the benefit and gentle breathing of the fresh air. And I did oft times apply linen cloths, spread over with unguentum rosatum, for the assuaging of the pain and heat. Besides, also, I devised a casse of latten, wherein the broken leg being laid, is kept in place far more certainly than by any junks; and, moreover, it may be moved to and again at the patient's pleasure. This casse will hinder the heel from lying with all its body and weight upon the bed, putting a thick, soft bolster under the calf, in the place where the casse is hollow."—*Pare*, p. 343.

The "casse" alluded to in this extract, was made of thin, plate brass, of sufficient length to extend from the knee to the bottom of the foot, and fashioned so as to receive the limb in the form of a longitudinal section of a tube, with an open space for the heel; and, being elastic, was capable of neat adjustment by tie-tapes, to suit the size of the limb with its properly cushioned inner dressing; while by the same elastic reaction, when the tie-tapes were untied, the flesh wound was exposed so as to admit of the required dresssings without causing any disturbance of the bones—the limb having, as he says, been "dressed according to art," with neat splints and bandages, with due pressure upon all parts before being placed in the "latten casse" alluded to. To this case is attached an arch or bow over the foot, to sustain the bed-clothes.

"To cure a broken and dislocated bone, is to restore it to its former figure and site. For the performance whereof, the surgeon must propose three things to himself. The first is to restore the bone to its place. The second is, that he contain or stay it, being so restored. The third is, that he hinder the increase of malign symptoms and accidents; or else, if they do happen, that then he temper and correct their present malignity. Such accidents are pain, inflammation, a fever, abscess, gangrene and sphacel."—*Pare*, 329.

"But certainly rottenness will never happen to the bone, if the hurt part is bound up as is fit, and according to art."—*Pare*, 342.

"Too tight binding or pressure causes pain, heat, defluxion, a gangrene, and lastly a sphacel, or mortification."—*Pare*, 325.

"The time requisite for union and the value of the splint will consist in a great measure in the manner in which it operates, and in the pro-

tection which it gives to the limb against the various casualties to which the latter may be exposed during the treatment, either from muscular contractions, from sudden and unexpected movements on the part of the patient, or from external sources." Same page, below: "Or in other words than giving that degree of rest and security to the fragments which experience has proved to be so essential to the well-doing of a fracture." He has been so explicit because some "(even in the profession, I am sorry to say) have had no very clear notions of the actual and merely mechanical utility of such apparatus."—*Fergusson's Practical Surgery, p.* 309.

Druitt's Modern Surgery, p. 228.—TREATMENT, ETC.: "First, to procure union, which is accomplished by keeping the parts at rest, and in apposition." Farther on, he remarks: "The fracture must be reduced or set; that is to say, the broken parts must be adjusted in their natural positions." Again: "It is necessary to use some mechanical contrivances to keep the limb of its natural length and shape, and prevent any motion at the fractured part." Further on: "And select splints that are long enough to rest against the condyles or other projecting points at its extremities." A few lines below: "The splints, when ready, should be firmly bound to the limb with pieces of old bandage; leather straps and buckles are very inconvenient." On same page, speaking of splints, he says: "Several substitutes for wooden splints have been brought into use of late years. One of the most popular and convenient of these is the gummed or starch bandage, or *appariel immobile*, on which a Frenchman has written a large book." "Another contrivance of the same nature, invented by Mr. Alfred Smee, and called 'the moulding tablet,' will be found simple, efficacious," etc. (Made by smearing old sheeting with a paste of whiting and gum-arabic.)—*Page* 230, *Druitt.*

"Some practitioners, instead of applying splints immediately, place the limb on a pillow, and merely apply leeches or cold lotions for the first few days, or perhaps for a week, and resort to splints after the inflammatory stage has passed over. But it appears to be far better, in every case, at once to use measures, by splints or otherwise, for keeping the fracture immovable. 'If,' says Mr. Liston,' the limb is laid loosely on a pillow, in an easy position, as it is by some thought or said to be, and no efficient means are employed to prevent the spasmodic action of the muscles, the startings of the limb, the jerkings of the broken ends, the displacement of the frag-

ments, then assuredly, in spite of all local and general measures, there will arise frightful swelling, pain, tension and heat. The intermuscular tissue will be gorged with blood, and the circulation of the limb roused to a dangerous and alarming degree. The apparatus and bandages must be loosened when swelling comes on, and afterwards be tightened sufficiently to keep the parts steadily in their place; and care must be taken to prevent painful pressure on any particular spot, and to rectify any displacement as soon as it may occur."

Druitt, p. 233: "After reduction, the great object is to produce adhesion of the external wound, so as to convert the compound fracture into a simple one." "Then, bandages and splints are to be used, but if possible, the splints should have apertures corresponding to the wound, so that it may be dressed without disturbance to the whole limb."

Miller's Practice of Surgery, p. 453: "Should pressure on the heel be much complained of, the limb may be laid on its outer side, encased in two pasteboard splints, extending from the knee to beyond the ancle."

"Mortifications from pressure of the integuments over the bony prominences of bed-ridden patients, are always preceded by some degree of inflammation, which is followed by vesication, and frequently ulceration, before the supervention of sphacelus." "Hence, such affections are called bed-sores; and experienced nurses always understand their cause and treatment. But the surgeon is never excusable for neglecting the means of prevention of such an occurrence." "In all paralytic or even debilitated persons, he should anticipate it, especially over the sacrum, the hips and the nates. The shoulder-blades are not rarely affected with it, and the heels are especially subject to it under the treatment for fractures with extending splints."—*Mc Clellan's Surgery, p.* 99.

[L.]

HYGIENE.

BY R. THOMPSON, M. D.

To PRESENT anything new or interesting upon a topic upon which everybody is *already* wise to overflowing, is a task of so difficult a character as to discourage even a systematic writer. But as every one is not only intelligent, upon the subject of hygiene, and possessed of some peculiar notion, I may be excused, should I dissent from current views.

But what can one promise to do with a subject embracing not only a combination of all the elements of the ancient philosophy, fire, air, earth and water, but the various uses of these, in their thousand and one mysterious ramifications.

To create a stand-point, I will assume as feasible, the consideration of humanity in its various stages of manifestation, ranging from early infancy to debilitated old age. Knowing, however, the impossibility of doing justice to either of these periods of human life, in an article of such length as the present occasion would tolerate, I may content myself with presenting an introduction, leaving its extension and elaboration to some future occasion.

When we consider the numerous nations from which we as a people have been derived, in connection with the various modes of life, ranging between savage barbarity and the highest states of civilization, with their views of the means of preserving health, as different from each other as the face of nature, climate, food, raiment and habits of their several native localities, we find the difficulties in our way accumulating on the one hand, while on the other, a ray of light scarce invites us onward.

To a people derived from a common stock or country, the Hygiene rules established by long observation would be recognized as common law. Not so here. A people derived from everywhere, must neces-

sarily lose their distinctive character in these matters, as well as in everything else; and hence we hear every one, as with authority of a better wisdom, enjoining the observance of his own rules upon his neighbor; not considering the apopthegm, "That one man's meat may be another man's poison;" a trite saying, embodying more common sense than can be found in some very grave dissertations on the "art of preserving health." In this, as in every other human interest, fanaticism is ready to take its part. Hence a furor upon the subject of the shower-bath, the daily morning ablutions, which we have known by way of gratuitous advice to be more regularly urged than every other means; and all certain to not only insure health, but to be equally beneficial in the removal of disease. And why? Because "I did it, and am well; my wife pursued the plan, and she was cured;" while probably a hungry "Shanghai" could pick bare the bones of both "*me*" and "*my wife*." Habits and customs are light and easy of transportation, and when transported, must be used whether adapted or not to our new, and often very different circumstances. We have often seen this strange proclivity illustrated, to the destruction of infantile life, by the use of warm and irritating flannels, imposed upon the soft perspiring bodies of delicate children, in the summer season, as well as in the winter, in our temperate southwestern regions; because such was the usage in the cold northeast, where, with some propriety, it might be tolerated.

In the year 1848, a man brought into Columbus a shower-bath. Why, it was so convenient, like the Dutchman's alarm-clock; you had only to pull the string, and be awaked—also showered. If too cold, this shower, by arousing reaction, would warm you. If too warm, then was the time to prove its efficacy—it would cool you; and then it was so nice; every body should, and every body did have them; and many got more for their money than they contracted for —bad colds, bronchitis, pulmonary engorgements, old pains confirmed, wandering pains located, and, occasionally, a cleaner surface, if they wiped dry, soon after showering; all of this train of events followed in the nature of the case. After a while, the demand for "pure cod liver oil" increased to such an extent as to remind some of the two yankee peddlers—the first peddling the disease, while the second followed selling the remedy. Probably it was only a coincidence. It was claimed, in behalf of constant bathings, and frequent ablutions, "That cleanliness was a virtue the gods delighted to honor;" that "cleanliness was allied to godliness." True, it has been so said;

but what character of gods? What kind of goddesses? In the language and dialect of an old Scotch friend, they were "Hathen godes and godeasses," who lived in warmer countries than ours, and whose moral pollutions were never removed by their frequent resort to the bath.

Now, while I would not cast a single reflection upon the moral influence of proper and healthful purification by water, I think neither morality or the practice of the gods, can establish the propriety of the absurd and unhealthful uses which have been made of the bath in the western country within the past few years. Does not every man of sense know the benefits and abuses of water in health and disease? To be healthy, did nature so constitute us as to demand the application of water to our surfaces oftener than the cleanly decencies of life require? When we find the fish demanding, as a natural requirement, the use of surface eration as conducive to health, then may we concede to man a participation in the element originally designed for the fish. But here I may be met by the class amphibia that inhabit both elements; but many classes confined to either one or the other are, and deserve to be, more highly appreciated. This reminds me of the remark of a most excellent lady in Columbus, whose son was in the habit of bathing three times a day, and whose surface bore a resemblance to the belly of a young sucker, so soft, so delicately fine was his skin. On consulting me on the propriety, or rather the impropriety of his habit, she gravely suggested, "that had the Almighty intended that we should be constantly dabbling in the water, he would most certainly have given us a covering of scales."

Now, it is an incontrovertible fact, that in the nature of our organism and pursuits, some will require more frequent ablutions than others; hence the importance of the rule which I now take the liberty to enunciate and recommend, that is, "That every one should observe the proprieties of society by keeping his person clean, and to that end should wash or bathe as often as is necessary; and that children unfit to take care of themselves, should be kept clean by those having charge of them." But one important fact should ever be borne in mind: that too much bathing, in its effects upon the surface, tends to relax the exhalants of the skin, and thereby induce debility, and ultimately establish vitiated secretions, which will become much more offensive than the natural products of healthy action, thus keeping up a necessity for a continuance of this system, so iniquitously entered upon.

To see the effects of the *soaking* process upon dear little children, among the *upper ten* of our cities, is truly appalling. Soaped and soaked, soaped and washed, and then washed again, from morning till night, and at bed time, until white leather would appear flushed in comparison with their poor, bleached surfaces.

While the Peri devoutly prostrate themselves before fire as worthy of divine worship; and others religiously acknowledge as divinities low orders of animals, and find gods in the heavens above, the air, the earth and the waters, almost as numerous as their worshipers, no special shrine has been erected to water as a divinity, yet so universal is its use by all living creatures, that they mourn in its partial or temporary absence, and rejoice on its abundant restoration. Under such circumstances, need it be a matter of wonder that it should be abused. As shown above, pure water may be abused. In the use of the expression pure water, I mean water as it percolates through its secret ways in the earth, and is discharged into channels for its conveyance to points of emission in springs.

But what shall we say of that foul concoction, falsely called rain-water which is so largely used to the disparagement of water as it runs in the earth? RAIN-WATER! What is it as used by families? As it falls from the clouds, it is—although not chemically pure—nevertheless clear, clean water, containing nothing of a filthy character. But not so of the roof washings, containing the debris of insects, the deposits from smoke, the filth of the streets, and other dust deposits, the decayed materials of roofs, such as wood, or metallic roofings, with their oxides and decomposing paints. Such soakings and washings of roofs, eave-troughs and spouts, being conveyed into the cistern, are thrown into common stock, there to ferment, putrify, and thus, like the "witch's broth," becomes, by high concoction, fitted for its diabolical uses. Who is to blame? Surely not the pent-up fluid! This announces its capabilities by sensible qualities not to be disguised, or misunderstood by any one enjoying his sense of olfaction or sight. Full of life it is, but not of life-sustaining qualities.

Here I am met by the filter. That the filter will do much toward cleansing the foul stuff of its *crudities*, is true; but until the soluble constituents of the fluid can be removed by the filter, it must retain much that is unfit for either the internal or external use of the human body; and such a filtering is impossible. Suppose you take ten drachms of ipecac, one ounce of the solution of strychnine, one ounce of pulverized cantharides, one dead rat, ten dead spiders, a handful

of earth-worms, and ten gallons of pure rain-water, bury the containing vessel in the ground for six weeks, then filter for use. What quality would be separated by the process of filtering? None whatever. The organic material of the mixture, as a mixture, would be separated from the fluid, but who will assert the power of the filter over its *essential* qualities? It would present a pure aud limpid appearance, and even may be deprived of its putrid odor, as is probably true of the cistern water; but the soluble, essential elements are there still. But even admitting the perfect purity of rain-water, it would by no means prove its adaptation to the ordinary uses of water as a beverage, and for culinary purposes, as it has been proved by an association of scientific gentlemen in London, to be incapable of sustaining the animal economy in vigorous health from its want of earthy qualities. To fill up the idea of cistern water, we must take an inventory of its live stock—its infusoria—visible to the naked eye and microscope, which, if seen in their living and dead generations, by the delicate creature who so carefully bathes in this *soft water*, would find as much offense in the view as do the dainty olfactories, so justly annoyed by its effluvia, more putrescent than the pestilential exhalations of the ill-famed campagna of Rome. SOFT WATER! If soft in proportion to its component parts, fit indeed must it be for the beverage and most delicate bathings and disportings of the naiads. Yet, strange as it may appear, such a being as *a cistern god* or *goddess* is not on record. A new divinity is wanted! To whom of our modern Sylphiades shall we award the title of CISTERNAD?

In the practice of medicine, more than any walk of life, can observations be made upon every state and condition of human existence. And here I put the question to every candid physician, whether he has often found filth to have been a generating cause of disease, unless it might be so considered in the infectious eruptions of the skin? To see a family reared in, as it would seem, a hydrophobic dread of water, and yet all in the enjoyment of robust health, is no uncommon spectacle; yet to deny the fact, or assert that better health would have been their lot, had they known the use of water, would be to contradict the common observation of mankind. Such instances of health do not justify the offense committed upon common decency by such habits, or afford an argument to the "*aquatic*" in support of their excessive use of so great a blessing as water. Nor can it ever become necessary, in making our escape from extreme *free soilism*, to soak out of our organism the vital

forces which stand as sentinels against the encroachment of disease; while, as is already shown, a more healthful and desirable state of secretions is maintained by a more rational use of water.

Air—Pure Air.—Among the habits of the present day, none is more frequently in the mouth of the lecturer, or more frequently dropping from the pen of the essayist, than pure air.

This being true, it may not be amiss to inquire what is meant by pure air, in the common acceptation of the term? That kind of air to which the individual is accustomed, is by him accounted pure, for the reason that use has rendered it inoffensive; while to another it might be intolerable or sickening. True, use will render impure air inoffensive to such as are constantly inhaling it, and its injurious effects upon the system will not be readily perceived; yet it requires no argument to prove the absurdity of breathing such, if purer were accessible. What are the sources of foul air? Impure air is found in many out-of-door localities, such as marshes, or depressions in the earth's surface, which are the receptacles of water and filth of various kinds of animal and vegetable origin, from which noisome exhalations are drifted upon the winds to the great injury of the dwellers in the neighboring regions. But as the regulation of such, together with foul streets and alleys, belongs rather to the public police than to family oversight, I shall confine my remarks especially to the home branch of the subject.

To the fear of night air, and of cool breezes by day, may be traced many a pale cheek and enfeebled constitution. To admit into our chambers, by night or day, a gust of wind, is not involved in the idea of ventilation. It means only that amount of circulation from without that is necessary to carry off those impurities which are generated, and have their sources within the walls of the house. To enumerate would be superfluous; yet I may mention bed-chambers, with their appurtenances, wash-stands, water-vessels, etc., etc., as sources of very unpleasant moisture and impurity of atmosphere, and to such an extent as to vitiate adjoining apartments. The admission of fresh air as an element of comfort and health, is a necessity; while the manner of effecting it is not so easily determined. To elevate or depress a sash, is an easy matter; and if the internal conditions of cleanliness be present, the required ventilation is effected. If not, the raising of the sash, and the opening of the door, will serve but a partial purpose.

It was deemed a most valuable device, when first introduced, to

let the upper section of sash down to admit air from above. As regards the greater purity of air derived from this source, it has a slight advantage over that admitted by the lower inlet. But from much observation, I believe the occupants of a room thus ventilated, are more liable to be unpleasantly influenced by cold air, deflected from the ceiling, striking obliquely downward upon the head and nape of the neck, than by the horizontal current introduced by elevating the lower sash To be sensibly impressed by cold air upon the nape of the neck, is highly injurious; and hence the importance of guarding against such a source of evil.

In the construction of hotels, it has been considered a great advantage to leave super-transom spaces above the door heads into the hall or passage, to shut or open at the pleasure of the inmates. This is a most objectionable mode of ventilation, for the obvious reason that the air, however foul, or offensive, in any one room, becomes common to all, if the space above the door be left open, which is usually the case in warm weather. So true is this, that the odor from a room, surcharged with offensive air, will be immediately diffused throughout the entire ranges upon the same floor and all superior levels to which the air may pass by hall or stairway. To be assured of the truth of this statement, it is only necessary to visit a hotel in which this arrangement exists, at a season of its full occupancy. It is evident, then, that interior openings between the several apartments of a house are in fact *not desirable*, but *unwholesome*, and, therefore, should not be tolerated. As ventilation involves the idea of the exclusion of impure, and the introduction of pure air, it is a fact admitting of no controversy, that it should be effected by the admission of air derived from an out-door source, and through outer wall openings.

By whatsoever means air is to be introduced, it should be brought from the highest accessible source. To this end, if no better method be proposed, I would suggest the working bellows by wind-driven machinery, placed above the roof, by which every apartment, by a proper distribution of tubes, could be supplied with pure air at will, with the rare exceptions occasioned by quiescent states of atmosphere, which, in our latitude, are of very rare occurrence.

Heating of Rooms.—The principal point which I shall discuss under this head is, that absurd custom which obtains to a great extent in the United States—that of deferring the heating of houses till too late a day in the fall of the year; and of abandoning fires too

early in the spring. Where the old fashioned fire-place exists, no obstacle interposes to interfere with family comfort from this source. But where parlor and sitting-room stoves are in use, they are very often ejected on the first approach of warm spring weather—thus placing it beyond the reach of the family to accommodate the temperature to the fluctuating changes of this fickle season. On the other hand, stoves are seldom replaced until stern necessity demands, on the close approach of winter—thus leaving an interval of partial discomfort, during which diseases, originating in cold, are contracted, often of a more lingering character than those belonging to, or originating in, either summer or winter.

In this connection, it may be proper to make a few remarks upon the heating of school-houses. A school is, and I suppose, in its nature, ought to be, a "despotism" upon a small scale. This places the comfort of the pupils in the hands of the teachers, who, occasionally, exercise authority with more severity than discretion. And so prone are we all to measure others by our own stature, that, if warm enough ourselves, others have no cause for complaint. And so exact are we in the application of this rule, that we fail to take a thought upon the numerous circumstances that would enable us to do justice to those subjected to our control. In a school, order is of the first importance; and to maintain it, discipline is a necessity. All children cannot be equally well clothed, nor can all occupy places of equal warmth and comfort; while different temperaments should not be overlooked. It may be impossible so to dispose of a house full of children as to meet the *necessities of every one;* but it should be the anxious care of a teacher to know that no one suffers from cold during school hours. It may be said that school houses are now so constructed that none need suffer in this respect. I am happy to know, that, to a considerable extent, this is true; while I have reason to believe many do suffer, while all complain, for want of fire during many cold spring and autumnal days; while the faithful and devoted teachers never dream of cold, being active, both in mind and body, in the discharge of the duties confided to them.

What may have been the observation of others, I pretend not to determine, but for myself I do know I have heard frequent complaints from my own, and the children of my neighbors, of suffering from cold in schools; and have as frequently advised a withdrawal of children from school on that account. And here, in all kindness to a class of teachers to whom Ohio owes a debt of enduring gratitude—

teachers from New England—I must be permitted to suggest that, having been brought up in a more severe climate, and where a higher estimate is set upon fuel, their habits of endurance of cold is greater than ours, it might not be improper to concede something to this difference, and so order matters as to leave no cause for complaint.

In public schools there can be no suspicion based upon the matter of economy; while in any school the trifling difference of cost would leave no ground for suspicion that any private teacher would curtail the comforts of a school on account of it. In the higher order of schools, (as some believe them to be,) called Female Seminaries or Boarding Schools, the intention of which is to develop the female intellect of our country, but which, I fear, is doing much toward the undermining of the physical constitution of the rising hopes of our race, by depriving our daughters in the formative days of their existence of those home comforts to which they have from infancy been accustomed, under the false, the preposterous idea, that a life, bordering upon the severe austerities of monastic discipline, is necessary to the early development of intellect. To this rule there are many honorable exceptions in our State; but while one "boarding school" in the old-fashioned, odious sense is known to exist, it is the duty of every good citizen to raise a voice against it. While the repletion of the proprietor's pocket is deemed of the first importance, the comforts of the pupil receive but little attention.

This element of barbarism will soon become obsolete, as well as the kindred idea, generated in the brains of half-starved monks, and sustained by frozen temperaments, influenced by interest, that a student, to make progress, should live sparingly upon mean food. Away with such absurdities—body and mind should develop in harmony.

Asking pardon for this digression, I will briefly consider a subject but seldom alluded to in its hygienic relations.

I refer to LIGHT! How shall I approach this sublime subject? Light, among the most active of all created agencies, where is its abode? It exists wherever the influence of the great light of the material world is, or has been felt, or its power acknowledged in the development of forms, ready to be again set at liberty by decomposition and combustion; and be thus restored to activity after a sleep of myriads of ages in those secondary creations, which, in a vital state, had derived it from the sun? Does not the phosphorescence of decomposing wood, illustrate one of its more modern combi-

nations in the growth of the tree; while the carboniferous formation in the coal stratum furnishes an illustration of its agency in the earlier history of the earth? Capable of energizing by his rays all animated nature, the sun, from his earliest enameling of the Eastern Hemisphere through his noontide splendor, until he has thrown back upon his track his receding effulgence, does he work. And when the evening star has taken charge of the twilight, does the sun not retire to rest, but is opening upon other skies, other clouds, and other lands his body and soul-energizing glories. From such an agent as this shall *we* derive no sustaining aid, during our sojourn upon one of his satellites? As well might we believe in the want of parental solicitude for offspring, as to believe ourselves placed remotely from his wonderful influences. Nay, more like unto our Heavenly Father in the distribution of his blessings, that great representative of Divine light, is the Sun—the center of our system—the light of the world! From childhood to decrepid age, do all wish for the walk, the ride, or the sail in the open air, for the benefit of "*fresh air.*" But while every grateful heart is full of thankfulness for the enjoyment of this blessing, how many—or rather how few—are there who feel the influence of, or are thankful for, benefits derived from light? while all lovers of nature enjoy unspeakable pleasure from objects of beauty on every side, the source of much, and medium through which it is all discovered, is seldom made a matter of thought, unless it may be charged with doing violence to a charming complexion, or of striking too rudely into delicate eyes.

To trace and enumerate the manifold benefits conferred by light upon our mental and physical systems, would impose a task of too great magnitude for such an occasion as the present.

To witness the effect of light upon every department of nature, is sufficient to assure us that we should not be withdrawn from its influences. But were it not for its temporary withdrawal, we would not know how to appreciate its value.

The top or vine of a vegetable, growing in a cellar, will reach, as by an act of reason, its tender shoots toward the smallest opening in the wall through which light is admitted, and will, if not prevented, penetrate that opening, and emerge from that gloom in which it finds no congenial influence to sustain its tendencies toward maturity or fructifying perfection, and to paint its hues only as light can paint. But pale and slender, feeble and inodorous, in the dark it languishes —dies!—a fit type of the dwellers in dark, narrow streets, alleys,

and half-lighted apartments, both above and beneath the surface of the earth. Where abject poverty drives people into retreats from the light of heaven, they deserve the commiseration and sympathy of the benevolent heart, in a more particular sense, than when suffering temporary privation from causes admitting of more speedy mitigation. To what source are we to look for redress of this great calamity to which so great a portion of the human race in large cities are, of necessity, subjected? Shall an appeal be made to landlords and owners of rentable property? To this class, I fear an appeal would be made in vain. To make the most of their means, is a law—a rule of life with them as a class, (with honorable exceptions,) which, I am sorry to believe, is never to be departed from willingly; nor would blame attach, or be laid to their charge, provided the tenement to be let was at all fitted for a human habitation; which, from abundant and painful observation, no class so well knows as the medical profession, is seldom the case. From subterranean and other unlighted, unventilated, and damp dens, generation after generation of squalid creatures may be carried to the tomb; while the property owners live in palatial splendor, faring sumptuously every day, unwilling that their dogs should lick the sores of their surviving tenantry, unless for a consideration. When once in conversation with a rare man, a wealthy physician, upon the unhealthfulness of basement and cellar kitchens—which some sensible people use,—I remarked upon the propriety of setting our faces against the habit, and of using our influence in dissuading people from so injuriously continuing in their use. His reply spoke volumes. "My dear sir," said he, "I have many houses to rent with basement kitchens." His reply was a fact, and his fact was an argument, which, being unanswerable, terminated the conversation. But what shall I say to those elegant house-keepers, whose sitting-rooms, drawing-rooms, and parlors, from which light is excluded to the lowest point of necessity, as if it were laden with the breath of pestilence; while the delicate residents, like the cellar vine, are innocent of appropriating a ray of its hues, or a spark of its soul-inspiring brilliancy or strength, from its all-cheering influences to their moon-stricken complexions and non-lustrous eyes? To face the light of heaven, is ennobling and exalting to every department of nature, and, surely, to nothing in so high a degree as to the human eye—the countenance—the gait—the action. Bold, open, confident, easy, sprightly, and pleasing in manner, are those who, in addition to other advantages in good society—who, with-

out fear of a spoiled complexion, dread neither the smiting of the sun by day, nor the moon by night, but go forth to court the influence of the sun as blended in the health-giving forces of the varying seasonsn; not only when the soft breath of spring invites abroad, but also when summer develops, and autumn ripens, the fruits of the field, and stern winter calls us to the walks of charity. All nature demands activity; while she stands ready to compensate the actor, provided her laws be held inviolate in the discharge of duty. Let light shine upon our path, and as surely in the natural as in the moral world, will our reward be certain, and payment not deferred. Moles and bats love dark retreats, and the hooting owl appears best in dreary abodes. The mole runs awkwardly and blindly upon the surface in the light of day; the flight of the bat is devious and uncertain, even in twilight; while the owl ventures not upon an open day excursion, but from surprise—so timid and fearful is this night marauder. Such is the nature of these night-loving creatures; yet, such, in degree, will that secondary creator, habit, render those of the human species, who, from mistaken notions of natural causes and life duties, seclude themselves from the developing, beautifying and sustaining influences of light, air, and healthful exercise.

Food, Eating, etc.—It is not my purpose, at present, to enter at large upon this all-absorbing, everlasting subject of diet and dietetics.

To deal with the stomach is to deal with life. Were I a physiologist, I would set out by calling it a gland. And did time permit, many points of comparison could be presented that would at least render the position plausible. But speculation aside, I will briefly allude to a few of its best known and easiest comprehended characteristics. As a receptacle of food, it is unsurpassed in its design and capabilities.

If it receive much, it is full. If but little, it is full. Hence elasticity is one of this organ's most glorious attributes. In a state of health it is not a moment idle, if its great almoners, the hands, furnish a supply of material. And hence activity is another characteristic. If filled to high repletion, the result of its labors is a less perfect product, and hence the function of assimilation is imperfectly performed; and as a consequence, the gourmand is no gainer by his gluttonous indulgence at table. The scanty meal of the necessitous poor, or the wisely temperate, if less in quantity than the greater number would desire, is acted upon with great nicety of elaboration, and the result is so perfect that nothing is lost.

We hear much said about "*over-loading the stomach.*" Such a thing is possible. But under what circumstances does this occur? Certainly not where the wise man eats his meal as a wise man ought, with a good appetite and a thankful heart. Nor is the stomach often over-loaded unless starvation, or a state approaching it, has preceded or induced the over-indulgence. The stomach here again is conservative, in so far as to cause the keenly hungry (not the starving) man to be satisfied with even a less amount of food than would serve the slow and deliberate feeder, whose god is his belly, and whose table is his shrine.

To view the stomach in this light, would doubtless enable us to set aside the thousand whims and false notions so universally prevalent and continually discussed, involving the questions "what, when, and how much you should eat?" Which questions could all be answered in a few words, if we were willing to follow the dictates of reason and the teachings of common sense: instead of indirectly charging the God of nature with a purpose to destroy his noblest work, by creating within us "gins and snares," in the form of appetites, never to be indulged but at our peril.

What should we eat? This question gives the world a great deal of trouble, and to little purpose. But submit the matter to the stomach, and fear not the consequences.

As regards the morality of eating, I would say, follow the scripture injunction, "Eat what is set before you, asking no questions for conscience sake;" which rule is equally easy of interpretation and application, requiring not that you should eat of every dish upon the table, but that you may partake of such dishes as you may prefer, with thankfulness.

If the repast be unsavory, your palate will not seduce you into unreasonable or unhealthful indulgence: if suited to your taste, in the highest possible sense, with everything calculated to stimulate the palate in this, unless you bring to the table a voracious appetite or a more than human stomach, you are not in peril as regards health, for the rule is this: The stomach will digest in proper quantities such food, whether simple or compound, as the appetite approves, while it will make but little effort to dispose of articles introduced uninvited by the palate, unless it be to reject them as unwelcome intruders.

How we Should Eat.—Much importance is attached to the manner of eating. You must eat slowly—you must masticate your food well — you must drink nothing with your meals, etc. Upon the

first proposition, I will assert, without fear of successful contradiction, that, as a general rule, slow eaters are great eaters, yes, in many instances, gluttonous feeders, characterized by either a hungry, gaunt presence or aldermanic dimensions. Much chewing! Is it not depressing upon the nervous centers to expend too much labor upon mastication? Is not the brain debilitated by the surcharge of blood thrown into it by the excessive action of the organs of mastication, when the process is too long continued? In evidence of this proposition, I will mention the liability of epileptics to violent seizures during meals; and this, too, greatly depending upon the solidity of the food eaten. Is it necessary to furnish the stomach of adult man with a softer mass than nature obliges the infantile stomach to digest—the firm curd into which the mother's milk is converted the moment it reaches that vital receptacle? To the everlasting chewer I would say, beware of milk! it will coagulate; and unless, by the bovine process of rumination, you "chew the *cud*," it may overtask your powers of digestion to dispose of this curd! Just think of it! A mass of unchewed CURD in a man's stomach! Thus to eat and watch one's stomach as we watch a thief or a murderer bent on mischief, is as incompatible with health as it is degrading to the intellect.

Were we but half as wise in carrying out the suggestions of nature, as indicated through the medium of appetite and desire, as we think we are in contradicting her in her most modest requirements, wise indeed would we be. But not so. Either forgetting, or never having known, that all the urgent demands of our physicial nature are based upon material wants, in *kind* as well as quantity, we give a stone, when bread is asked; and a crust, when a full meal should be furnished. Upon this point we are not left to vague speculation, as the chemist finds a deficiency, in the solids and fluids of our body, of those qualities most urgently demanded by appetite.

DRINK AT MEALS.—To drink, or not to drink at meals, is a matter so clearly involved in the kind of food eaten, as to be safely left to the necessity of the case. If liquids be desired, while partaking of the substantial elements of dinner, I can see no good reason why this desire should be rebuked and left ungratified. Is not this demand founded upon a want—upon a necessity? That many improper usages form habits injurious to our physical nature, is true; but why suspect a goblet of water, sipped or drank during a meal, of a secret intention to harm us?

LATE SUPPERS.—To the physiological life-guard—the stomach

sentinel—late suppers are matters of distressing interest and elaborate condemnation. If such inquisitors will view things as they really exist, probably (if much *watching and abstinence* may not have debilitated them too much to be capable of observing) they will discover that, as a general rule, people eat morning, noon, and night; say at 6 A. M., 12 M., 6 P. M., with intervals of six hours between meals; rest following soon after supper. The labors of the forenoon prepare the stomach for dinner; the business of the afternoon renders the evening meal necessary. This closes the business and eating of the ordinary day. Many exceptions and variations are wrought by individual necessities and habits, which, however, do not vary the general rule. Now, if business or pleasure causes us to add six hours to our day's activity, is nature less exhausted, less exacting, during the hours between 6 and 12 at night, than between 6 and 12, or 12 and 6, during the day? The rule here is a rational one: "If hungry, eat, not *too much*, and fear no evil." The man who is afraid of being misled by appetite, is incapable of self-government, and is an object of pity.

Gum Chewing and Rope Skipping.—In speaking of schools, I might, with propriety, have alluded to the practices of rope-skipping and wax-chewing, which are so common as to constitute a real evil.

I presume the spectacle of a class reciting physiology, with mouths so full of wax or gum, undergoing the everlasting process of chewing, as to be incapable of clear articulation, is a matter of every day's observation. The direct tendency of this habit is to throw a surcharge of blood into the cerebral circulation, to which, after a time, the brain becomes so accustomed as to be incapable of acting with energy, unless sustained by an undue or abnormal vascular fullness. To one whose attention has not been called to this subject, the difference between the mental capabilites of a child when chewing, or not chewing, would appear utterly astonishing.

Nor are children the only sufferers from this habit, as persons of every age may be seen addicted to it, to such a degree as to render the quid a necessity. I once knew a respectable lawyer in Columbus, who could neither think nor act with energy, without a plug of paper in his mouth to give activity to his jaws.

To speak of the remote and permanent evils which must ultimately result from such a habit, would lead me into the discussion of vascular plethora, cerebral congestions, nervous headaches, debility of

both mind and body, palpitation of the heart, etc., etc. I, therefore, only deem it necessary to call attention to this seemingly small matter, believing that those having the interests of the rising generation at heart, will, at once, be willing to lend their aid in doing away with so pernicious a custom.

Jumping the rope is a practice so injurious to health, that I have often been astonished to find persons unacquainted with the fact. So far, indeed, are some from suspecting it of evil, that it is recommended as a healthful exercise; and this, too, in schools where *physiology* is taught!

To jumping the rope "*in moderation*," no one could object. But who has ever seen this? Rope-skipping is always done as a feat, a game, or play for the mastery, to be determined either by time or count, and in its very nature incapable of being practiced in moderation; as, in the one instance, the child holding out longest is victor; while, in the other, the victory is achieved by having counted the greater number of jumps.

As an exercise, it is difficult to conceive a more desperate or exhausting effort of the human body, or one more certainly calculated to work evil. I have known a young lady to die from disease of the heart, induced by rope-jumping; and many to labor under palpitations of the heart, congestions of the lungs and brain, while goitre is rapidly developed, if not caused, by this excessive exercise. To do away with this evil, also, may I not invite the attention of guardians and instructors of children, in anticipation of a hearty, concurrent coöperation?

Late Weaning, etc.—I must be permitted to say a few words with special reference to the dear and tender term of life, infancy.

In the first place, a child should be weaned within a year, unless some pressing circumstance forbid.

The but too prevalent idea that a child should nurse through the second summer, is productive of unspeakable mischief to both mother and child. One of the evils of late weaning, results from the too great repletion of the brain, induced by the long-continued resort to the breast for sustenance. Another source of danger, is found in the sudden changes induced in the milk by alarms and shocks upon the nervous system of the mother, which are liable to be reproduced in the child in the form of spasms, or other disturbance of health, as every close observer may have noticed. To avoid the consequences of protracted nursing, and enable the child at a proper age to sub-

sist without its mother's milk, it should be made to partake early of the various articles of table diet. To the mother, the second summer's nursing, in its consequences, is frequently so disastrous as to render her at 35 years of age as old, physically, as she should be at 45 — complaining of pains in the side, back, and loins; round-shouldered, hollow-breasted, lean, pale, and, in short, greatly broken and depressed, both in mind and body; yet able to bring into existence another and yet another of those blessings, which, by a mistaken view of duty, and through misdirected affection, are made the means of still more deeply depressing the energies of their best earthly friend.

On Changing Food in Epidemic Seasons.—To write a dissertation upon the uses and abuses of various kinds of diet in their relations to disease, would be a work too extensive for our present limits; but having passed through several visitations of cholera, I cannot forego the temptation to give the result of my observations upon so interesting a topic as is presented in the dietetic relations of modes of living to that terrible disease.

The cholera being a disease more characterized by discharges from the alimentary canal than by any other single feature, it appeared to the common observer more liable to be influenced by our food than by any thing else; and hence the looking to this thing and that, but more especially to fruits and vegetables, as the articles in which cholera would be most likely to find its exciting agencies. Upon this absurd view, strengthened by its supposed relationship to cholera morbus, was founded a most strenuous opposition to the kinds of food just named. Had this error been confined to the people at large, it would have had but a short run, and few would have fallen victims to the fallacy. Not content with entertaining such notions, some physicians denounced every one who inculcated an opposite opinion as wishing to promote or extend the disease. Nor was it until much fatality had followed in the wake of the cholera, that a proper idea began to prevail in regard to the use of vegetable diet, as prophylactic against its attacks.

That certain kinds of food could not induce cholera, where its remote cause had not predisposed the system to this form of morbid action, is true; but that certain modes of life, embracing and inducing peculiar states of body and mind, in such as had been brought under the influence of the remote or predisposing cause, would hasten or retard the development of the disease, is a fact so well ascertained as to admit of no fair denial. Among the "peculiar states of body and

mind" alluded to, I will mention a depressed state of the vital forces, a tendency to constipation of bowels, with a corresponding state of mental depression, and indisposition to high or laborious mental effort; while, with many, a fatal fear of the disease appeared to control every thought, word, and action.

That much would be said by every one upon preventive measures, was to be expected; but that more truth than error should be propagated upon so new a topic, was hardly to be looked for. Because a constipated state of the bowels was the very opposite of the discharging stage of cholera, it was inferred that such a condition was highly desirable. As vegetable diet was believed to excite an opposite or relaxed condition (a state associated in the common mind with cholera morbus), it was thought that it was likely to induce cholera—overlooking the important fact, that the tendency to constipation, then so prevalent, was the immediate antecedent to the diarrheal stage, falsely called premonotory symptoms; and forgetting or disregarding the most important fact in the whole train, that cholera morbus and cholera did not bear the slightest relationship to each other—the former being a bilious disease, or, at least, characterized by bilious discharges; the latter characterized by discharges non-bilious in a most positive degree.

Be the cause of the error what it might, the public mind ran wild against fruits and vegetables—doctors denounced them—towns, corporate and non-corporate, city councils, priests and people denounced them, and the best fellow denounced the loudest; and the physician who did not, on the approach of the disease, deny its presence, and, being present, did not denounce fruit or vegetables as its cause, was himself denounced in the strongest terms.

What then was to be done? To yield up the truth, and adopt the error for sake of popularity, was not to be thought of. The course was a plain one. An opinion in medicine or hygiene is not an honest one, unless you are willing to hazard your own life and reputation upon it! Entertaining such views, I lived upon them, and by my influence and example, induced many others ultimately to adopt the same opinions and course of living; and have now reason to thank HEAVEN that my own family are all living, after having witnessed as many horrible scenes in that disease as any family in the city; while I have the consolation to believe, that many lives were saved in families, who, at first, with fear and trembling, entered upon our course of rational living.

I would not be understood as inculcating an exclusive vegetable diet. My family, during the cholera seasons, endeavored to live better than usual upon every thing the appetite craved, but especially upon a greater proportion of good fruits than usual. To keep up the tone of the nervous system, was a point never lost sight of; and this was best done by such diets and drinks as nature demanded — the *necessity*, as elsewhere intimated, being determined by the desire. By such a course of living, it was not difficult to sustain both mind and body above the fatally depressing influences of the predisposing cause; for so sure as the powers of life became so feeble, as hinted above, as to be unable to resist the immediately depressing effects of fear, or any other influence that could diminish the vital forces to a certain point, the predisposing cause assumed control of the case. Among the best prophylactics, then, I would recommend good living, in the rational sense, including fruits and vegetables, mental and bodily activity, and a cheerful discharge of duty.

As we can, occasionally, advise by negation, I would say, if you wish to die of cholera (a cholera atmosphere being present), constipate your bowels by a course of unnatural dieting — discard all ordinary table comforts — meet no person with a smile upon your countenance — neither permit a smile in your presence — talk of nothing but cholera — and, occasionally, feel of your bowels — try to discover whether you have not some of the symptoms upon you — darken your house by day, and don't light it by night — don't go to see or assist any body in the disease — believe it is contagious — don't let any body come into your house who has been to see a patient in cholera — advise every one against eating any thing GREEN, lest *you* should happen to fall a victim to their cannibal appetite. By following these simple rules, you may have a passage in the *first downward train!*

The subjoined notice was accidentally found by a member of the committee on Publication, who republishes it with the proceedings of the State Medical Society, for its historical value.*

From the Lancaster (O.) Gazette, March 20th, 1827.

"SURGICAL.—A tumor of immense size, growing in the mouth of a little girl between 12 and 13 years of age, a daughter of Mr. Neff, in Clear Creek township, in this county, attached principally to the right cheek bone, temple, angle and body of the lower jaw; of an irregular form, and strong cartilaginous texture, measuring from its commencement, immediately behind the ear, to the apex, front of the mouth, 9½ inches, and weighing upwards of 2½ pounds (the parotid gland is included in the mass), was removed from its attachments, and extracted on Monday, the 5th inst., by Dr. Wm. M. Awl, a young surgeon of considerable intelligence and enterprise. The carotid artery of the same side was taken up, and tied, as well to prevent the growth of the tumor as the more effectually to command the hemorrhage. The little sufferer, we have learned, is at this time (two weeks from the operation) doing well, and likely to recover. We belive this is the first time the carotid artery has been taken up, west of the mountains, and the fourth time in the United States."

* A history of this case was published in the *Western Medical and Physical Journal*, October, 1827.